

The MOTOR OWNER

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Saloon. In the
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rb refinement.

Model the Motor
It conforms more
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PUBLISHING Co., Ltd.

May 1922

One Shilling



K.L.G. Sparking Plugs

"G" TYPES

6/-

EACH

In addition to the qualities which have secured the unique achievements of all "K.L.G." plugs the "G" series (as illustrated above) incorporates new features of practical value to the motor-owner both from the point of view of efficiency and economy.

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Sole Export Agents: S. Smith & Sons (M.A.), Ltd., Central Works, Cricklewood



"WOLSELEY"

The one horse-power method of touring in old days, without windscreens and hoods, and the fifteen horse-power Wolseley fit for modern Kings and Knights An artist's fantasy.

IN grace of line, in road performance, and in real economy, the WOLSELEY FIFTEEN still remains without rival as the best all-round touring car in the world. Its remarkably effective suspension, and its marked reserve of power, render it a delight to drive.

When fitted with our new all-weather curtains, it can be transformed quickly and easily into an enclosed car as shown above for use in wintry weather. These curtains open and close as part of the doors, giving unrestricted access. The windows are of celluloid.

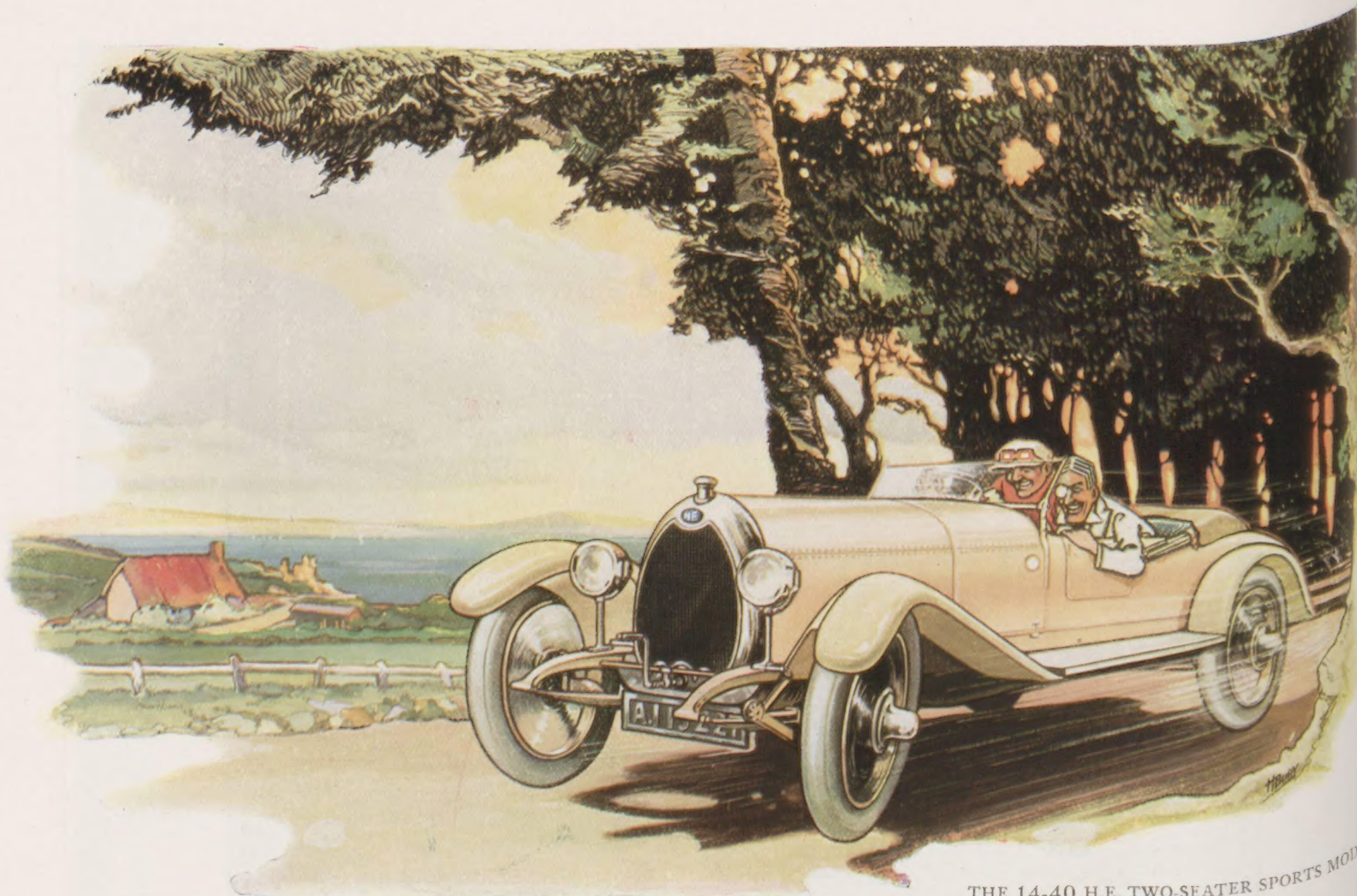
Price - £795
Fitted with all-weather curtains - £15 extra

Write us for Catalogue No. 34 post free

WOLSELEY MOTORS LTD.,
(Proprietors: Vickers Limited),
Adderley Park, BIRMINGHAM

Standard equipment
Dunlop Tyres

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THE 14-40 H.E. TWO-SEATER SPORTS MODEL

An Engineering Achievement in a High-Speed Sports Model

STRENGTH, precision and accessibility are the assets of the 14-40 H.E. Sports Model Engine. Its finely made working parts, machined to accurate limits, embody only those features of *proved* design and selected materials which contribute to power, economy and long life.

The H.E. is not a Car of a *single* advantage only—it meets all needs ; it is a fast Car, a beautiful Car, a comfortable Car. A Car to stimulate pride of ownership.

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Sports Model Chassis - -	£650	Standard Chassis - - -	£550
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If desired, any H.E. Model can be acquired on Deferred Terms, or it can be arranged to exchange existing Cars in part payment.

Write us for name and address of nearest Authorised H.E. Agency, and ask for a free copy of descriptive Booklet.

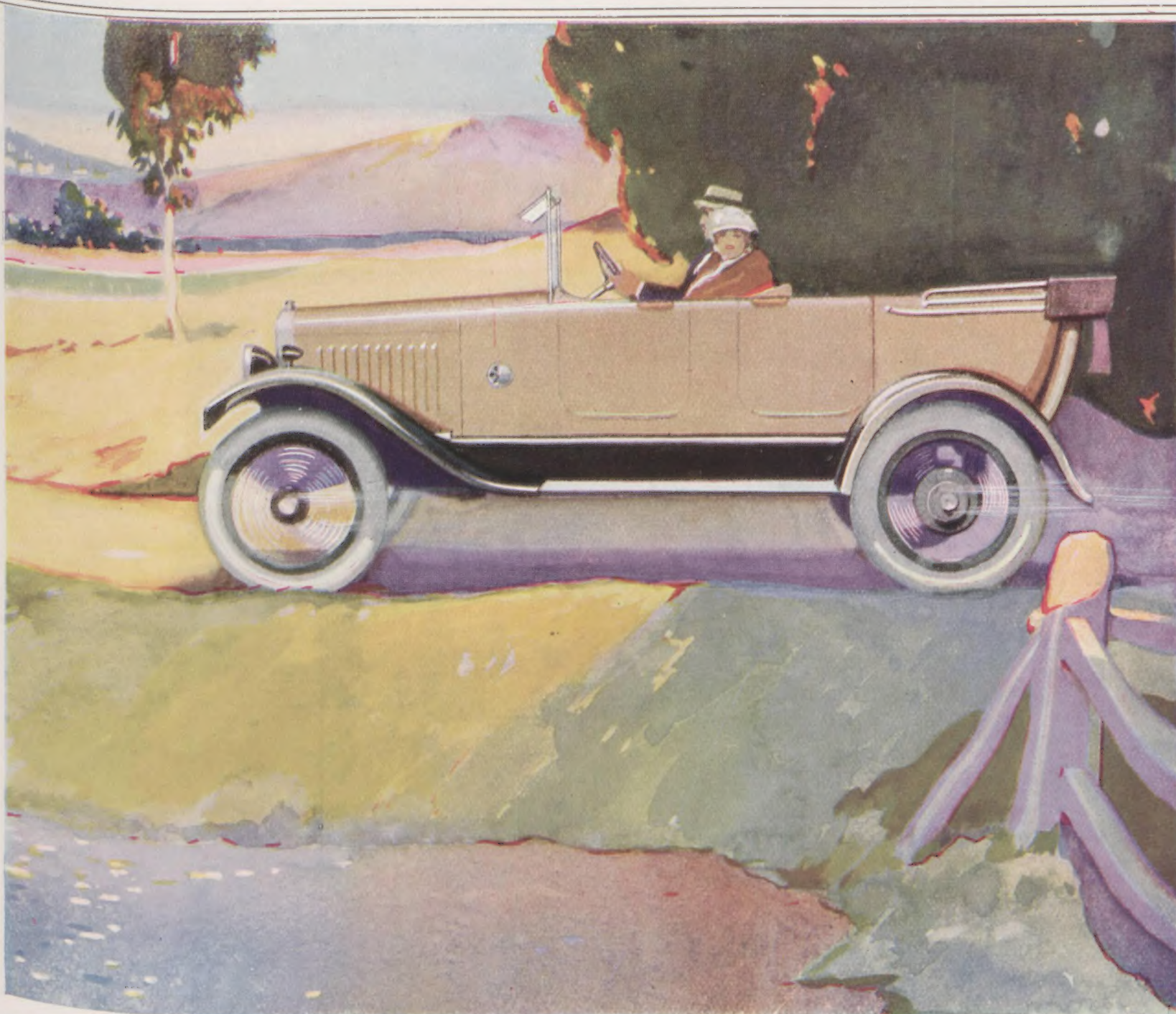
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UNSOLICITED TESTIMONIAL!

14, George Street, Port Talbot.

February 20th, 1922.

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I feel I must write and let you know how pleased my family and myself are with the Modele-de-Luxe Overland Car you supplied me with last month.

I have kept the hood up ever since, it is as comfortable as any closed car.

My last run of 113 miles worked out at 30 and a fraction miles to the gallon, which I am sure is surprising with heavy road and hood up.

Yours faithfully,

(Signed) GEO. DAVISON.

(Original may be seen on request.)

Write for EVIDENCE FOLDER
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Overland

BRITISH MODEL OVERLAND
DE-LUXE TOURING CAR

395 gns.

BRITISH MODEL OVERLAND DE-LUXE
TWO SEATER with Double Dickey

380 gns.

(Deferred Payments can be arranged)

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THE WONDERFUL ERECHTHEUM ON THE ACROPOLIS AT ATHENS
IS ONLY ONE OF THE OBJECTS OF INTEREST AND BEAUTY
TO BE DEVoured IN A JOURNEY THROUGH GREECE

*If you have been, you are going again
If you have not been, you must visit it!*





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BEAUTIFULLY sprung, supremely luxurious, and backed by the longest experience of automobile manufacture in the world, the Benz is essentially the car for the motorist who will have nothing but the best.

A trial run will convince you that, irrespective of price, there is no finer road carriage on the market to-day.

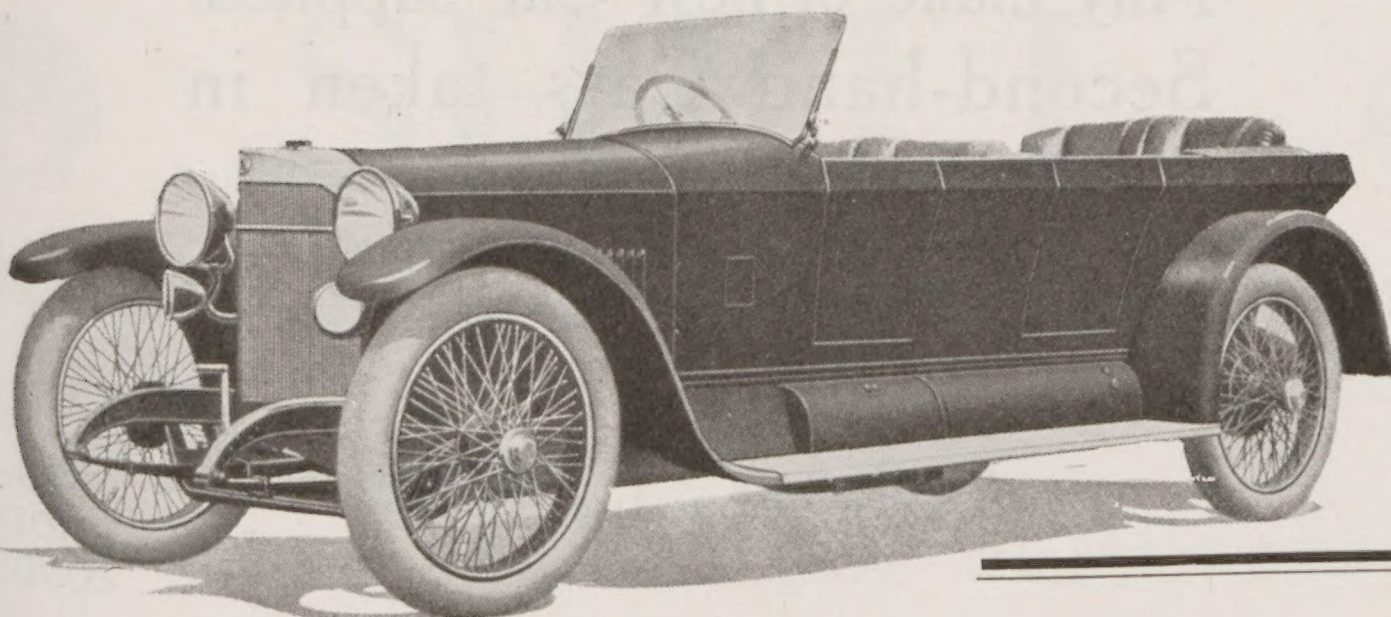
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WE SPECIALISE
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Any make of new Car supplied.
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IRATE GARAGE PROPRIETOR: "Why didn't you give that customer Shell directly he asked for it? What kind of a garage do you think this is, trying to palm off some other brand instead of giving the customer what he wants? Take care another time to serve customers promptly and courteously with Shell when they ask for it—if you don't, they will go on to the next garage, and we shall lose their custom."



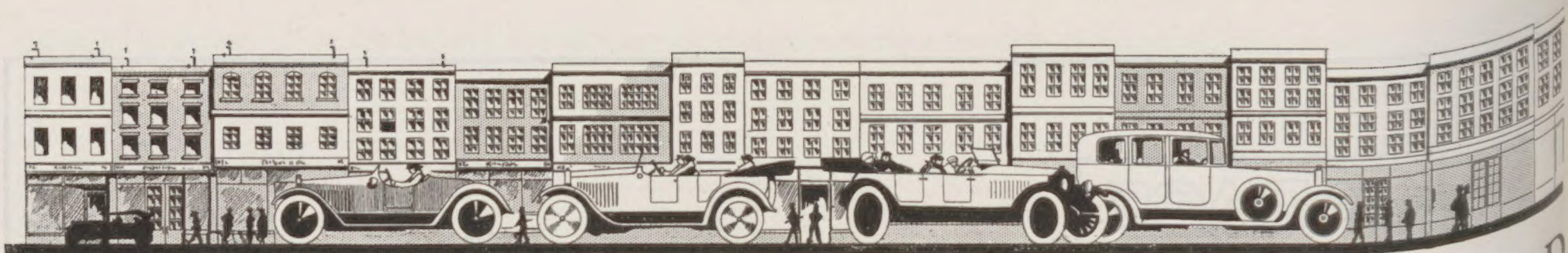
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Nature's Mixture of Petrol and Benzol

SHELL-MEX, LTD.

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THE · MOTOR · MARKETS · OF · THE · WORLD

IF you have made up your mind to buy a particular make of car the London show rooms of which are among the few that are not situated in that thoroughfare, you need never visit Great Portland Street. And that is the only reason which we can imagine that will obviate the necessity. If there is the slightest doubt in your mind as to the type of car calculated best to satisfy your requirements, you will find yourself

forced to go there, for it is the principal motor market of London, perhaps of the world. New and used cars of every type, nationality and make and for sale and visible—try-able too, so far as that goes; and, since the sinking of the purchase-price of an automobile is a fairly serious matter to the most wealthy of us, it is only fair to one's self to make the final plunge only after the deepest consideration of the rival merits of

different makes. Every car has its outstanding advantages and its enthusiastic supporters, but the particular merits of one make may not be those which you most desire. The point upon which your necessities are urgent and unalterable may be just the feature in which that make is weak. Obviously, therefore, the choice of an automobile should be made from the widest possible selection—and that is just what Great Portland Street provides.

12 H.P.
70 × 120
4 Cylinders



Overhead
Valves

This chassis was primarily designed to stand up to the very severe road conditions of Italy. Compare the ANSALDO with any other chassis, regardless of price, for design, quality, sturdiness, simplicity and workmanship.

CHASSIS £495
TORPEDO £550 Fully equipped

INSPECT IT. COMPARE IT THEN JUDGE FOR YOURSELF

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INSURE YOUR CAR

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United Motor & General
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Chairman: A. NOEL MOBBS, O.B.E. General Manager: C. A. HOLLIDAY

Authorised London Agents and Sole Distributors
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PALLADIUM "Light Twelve"

Exceptional Service facilities.
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Specially advantageous
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Have you seen the latest model Hillmans?

Immediate delivery of
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SEVERAL EXCELLENT NEW AND SECOND-HAND CARS.

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In view of the Wonderful year of records just created by the amazing "A-C," we are glad to announce that we have the new models of the

"A-C" LIGHT CAR

ready for immediate delivery. The "A-C" holds more records than all other light cars combined. If you will let us take you for a run in an "A-C" you will quickly see why it holds them.

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ALFRED WASTNAGE
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"No better value is obtainable"

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"The Car with a Personality"

BUILT—
not assembled in one factory by "GWYNNES" the world-famous engineers.

for £448
4-Seater Model

MANY OTHER MODELS TO SELECT FROM.

*You cannot do better than
invest your money in a Hillman*



11 h.p. HILLMAN ALL-WEATHER TWO-SEATER
£495 complete

THE NEW HILLMAN ALL-WEATHER TWO-SEATER has received a great welcome from all motorists because it completely solves the problem of providing adequate protection from wind and weather. The efficiency of the windscreen, side windows and hood is complete and beyond criticism, excluding the slightest draught and giving all the comfort usually associated with a closed car. The side windows, which open with the doors, are constructed of celluloid in steel frames covered with hood material, and they can be used with the hood down if desired. The entire elimination of turn and press buttons makes it extremely easy to fix and unfix the side windows. When not in use they are stored under the front seat. The hood envelope is provided with special accommodation for carrying parcels, etc. These unique all-weather features, combined with improved all-steel chassis and bodies built by the Hillman Company, at their Coventry factory, result in a car so comfortable, efficient and pleasing in appearance that you must, in justice to yourself, see the HILLMAN before deciding on your new car.

OTHER MODELS ARE

11 h.p. TWO-SEATER COUPE	£570
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11 h.p. FOUR-SEATER TOURING	£550
10 h.p. SPEED MODEL	£590

Each car is supplied with : Speedometer, Spring Gaiters, Spare Wheel and Tyre, Lucas Electric Lighting and Starting Set, Tool Kit, etc., and carries the manufacturers' comprehensive guarantee.

Specification and full particulars from
The HILLMAN MOTOR CAR CO., LTD.
COVENTRY

London and Home Counties Distributors :
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Hillman



Telephone:
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HAMPTON & SONS

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N.B.—These publications form a unique guide to house seekers.



WITH SOUTHERN ASPECT.

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(600 yards from the Golf Club.)
UNRIVALLED POSITION. SANDY SOIL.
FOR SALE, ON REDUCED TERMS.

One of the most perfectly-appointed PROPERTIES in the market, comprising a spacious MODERN RESIDENCE in first-rate order. Contains panelled lounge hall, a splendid suite of reception-rooms, including a fine ballroom, sixteen bedrooms, three bathrooms, good ground-floor offices.

Electric light. Central heating.

Stabling and garage. Beautifully laid-out gardens, including two tennis courts, flower and kitchen gardens, in all 2 ACRES.

Strongly recommended as an up-to-date and particularly attractive home.

HAMPTON AND SONS, 20, St. James' Square, S.W.1. (C.27,507.)



A BARGAIN IN SURREY.

Twenty-two miles from town.

PRICE ONLY £7,000 FREEHOLD.

A SPLENDIDLY APPOINTED RESIDENCE.

Lounge hall or saloon, three excellent reception-rooms, one billiard room, sixteen bed and dressing-rooms, servants' hall.

Gas and water laid on. Stabling. Garage. Two cottages.

Brick-built swimming bath; farmery; magnificently timbered grounds and parklands, in all about 36 ACRES. NEAR STATION.

HAMPTON AND SONS, 20, St. James' Square, S.W.1. (C.27,744.)



ONE OF THE CHOICEST RESIDENCES
Of moderate size in beautiful district of

OXTED.

Under one mile from station.
FOR SALE FREEHOLD.

Lounge hall, three reception, ten bed and dressing rooms, two bathrooms, two staircases. Every modern convenience.

Petrol gas. Company's water. Independent hot water.
400 ft. up. South-East aspect.

Well displayed but inexpensive grounds, tennis lawn, well-stocked kitchen garden, etc., about 1½ ACRES in all.

VERY STRONGLY RECOMMENDED.

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COBHAM, SURREY.

HIGH POSITION. CLOSE TO COMMON AND WOODS.
Easy Reach of Burr Hill and Other Courses.

FOR SALE, FREEHOLD,

A PICTURESQUE MODERN RESIDENCE.

On sandy soil, in excellent order and in very charming grounds of about 1½ ACRES. Entrance hall (with lounge), dining-room, large drawing-room, bath, six bedrooms, servants' hall, etc.

Company's water and gas. Telephone. Electric mains pass the property. Well-timbered and pretty garden, tennis lawn, kitchen garden, water and Dutch gardens, etc. Site for garage. Station 1½ miles.

Full particulars from

HAMPTON AND SONS, 20, St. James' Square, S.W.1. (C.27,744.)



SOUTH DEVON.

One mile from Sidmouth station.
Glorious views. High position. Golf.

THIS ATTRACTIVE LATE GEORGIAN RESIDENCE,

Dating from 1810, having large rooms and up-to-date conveniences, hall, four reception, twelve bedrooms, two baths, two staircases, usual offices.

Company's gas and water. Main drainage.

Well-matured grounds, prettily laid out, consist of two tennis lawns, partly walled kitchen garden, etc., about 2½ ACRES. Stabling. Garage. Sandstone soil.

PRICE FOR THE FREEHOLD, £5,000.

HAMPTON AND SONS, 20, St. James' Square, S.W.1. (C.12,301.)



EPSOM.

On the southern outskirts of this famous old town.
CLOSE TO THE COMMON AND SHORT DISTANCE FROM STATION.

TO BE SOLD, FREEHOLD,

THIS FINE OLD GEORGIAN RESIDENCE,

Together with well-timbered Grounds of about SIX ACRES. Hall, three reception-rooms, ten bed and dressing-rooms, bath, etc.

LODGE. STABLES. SMALL FARMERY.
Main drainage. Gas and Company's water.

MODERATE PRICE.

HAMPTON AND SONS, 20, St. James' Square, S.W.1. (S.11,777.)

ST. JAMES' ESTATE ROOMS

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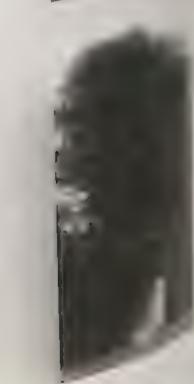
Y.

billiard room
ages,
and grounds and
in 1874



1874
1874
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1874



1874

1874

1874

Telegrams: "Teamwork, Piccy,
London."
Telephone: Regent 6668-6669.

NORFOLK & PRIOR

131, REGENT STREET, W.1

Auctioneers and Surveyors,
Valuers,
Land and Estate Agents.

On high ground, in glorious country, enjoying magnificent views; convenient for several good towns and villages, under three hours from London, and having exceptional sporting and social advantages.
AN ORIGINAL, HISTORICAL AND PERFECTLY PRESERVED

TUDOR MANOR HOUSE

Undoubtedly one of the most choice examples of Early English half-timbering now standing, in faultless repair and equipped with all modern conveniences, including central heating and main drainage. Beamed and Panelled Ceilings. Carved Stone and Oak Chimneypieces. The well-arranged accommodation includes lounge halls, four reception-rooms, sixteen bed and dressing-rooms, two bathrooms, exceptional domestic offices; stabling and garages.

A REMARKABLE FEATURE IS THE WONDERFUL OLD-WORLD GARDENS, with their ancient clipped yew hedges, avenues, and topiary work, mellowed stone terraces, Italian garden with fountain, and undulating lawns interspersed with fine old specimen trees; well-timbered park, some farms let to old tenants, three villages and a large area of valuable Woodland. This is one of the finest shooting in the country.

FOR SALE WITH ANY AREA UP TO 2,340 ACRES.
Renowned Pheasant and Partridge Shooting. Hunting. Fishing. Golf.
Inspected and recommended by the Sole Agents, NORFOLK AND PRIOR, 131, Regent Street, W.1, who will forward illustrated particulars, plan, etc. (23,009.)



THE HOME OF A FAMOUS PEDIGREE HERD.

KENT

A VALUABLE FREEHOLD RESIDENTIAL AND AGRICULTURAL ESTATE

in a high and healthy rural district, handy for a main line station and golf, and only a short distance from London.

The handsome and exceptionally well-appointed Modern Mansion stands in the centre of the estate and is approached by two long drives, each with lodge at entrance. The well-arranged accommodation includes noble lounge hall (29 ft. 10 in. by 17 ft. 8 in.), four reception rooms, billiard room, twenty bed and dressing rooms, three bathrooms, excellent offices, two staircases. Beautiful Oak Panelling. Splendid order throughout. Central Heating. Electric Light. Main Water. Dower House. Thirteen Cottages. Stabling. Garages.

VERY FINE MODEL HOME FARM BUILDINGS.

The Ornamental Gardens and Grounds are most attractive and have been well kept up, the lovely Lawns are shaded by rare specimen trees; productive walled Kitchen Gardens, well timbered, undulating Park, woodland, arable and pasture, in all 371 ACRES.

For Sale as a whole, or would be divided.
Inspected and recommended by the Sole Agents, NORFOLK AND PRIOR, 131, Regent Street, W.1. Illustrated particulars. (1173.)



A Residence of unique charm and old-world character, upon which the owner has made a hobby of fitting up and has spent many thousands of pounds during the past few years; perfectly appointed and beautifully furnished throughout, equipped with every conceivable labour-saving device and forming

AN EXCEPTIONAL HOME

in a first-class residential locality, amidst countrified surroundings, yet only seven miles from London.
TO BE SOLD

WITH OR WITHOUT THE LOVELY CONTENTS.
The accommodation includes galleried lounge hall 30 ft. by 10 ft 9 in., dining room 24 ft. by 16 ft. 6 in., drawing room 32 ft. by 21 ft., billiard room or studio 23 ft. 9 in. by 15 ft., morning room and conservatory, splendid domestic offices, six bedrooms, two perfectly equipped bathrooms, constant hot water supply to all offices and bedrooms, which are fitted with lavatory basins.

Parquet Floors. Beamed Walls and Ceilings. Central Heating. Electric Light. Modern Drainage. Main Water. Phone. Garage with Chauffeur's Flat. Stabling. Vinery and other Glass.

Well-timbered, inexpensive Grounds of two Acres with productive Kitchen Garden.
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HERTS & ESSEX BORDERS

In the centre of a beautiful stretch of well-wooded undulating country with good social and sporting amenities; some two miles from an old-world town with station; also within easy motoring distance of a main line station, whence London is reached in thirty-five minutes by express trains.

Fishing. Shooting. Hunting.

A PICTURESQUE ELIZABETHAN RESIDENCE.

erected some fifteen years ago, now mellowed, and almost indistinguishable from an original half-timbered Manor House, the charming characteristics of which have been skilfully incorporated with every modern convenience. Long carriage drive; south-west aspect; high altitude.

The accommodation includes fine oak-beamed and panelled lounge hall 27 ft. by 17 ft. 4 in., dining room 19 ft. by 15 ft., drawing room 19 ft. by 16 ft. 6 in., loggia, ample offices, seven bed and dressing rooms, bathrooms, massive oak principal staircase, secondary staircase.

Acetylene Gas. Ample Water Supply. Modern Drainage. Two Cottages. Stabling. Garage. Well-timbered grounds with charming ornamental gardens, tennis lawn, yew hedges, productive kitchen garden and park-like pasture; in all FIFTEEN-AND-A-HALF ACRES.

FOR SALE.

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HUNTING. FISHING. SHOOTING.

SUSSEX

Occupying a delightful and bracing position in one of the beauty spots of the southern counties; handy for several villages, and within easy reach of Billingshurst and Pulborough, with main line train service to London, which is under fifty miles distant.

A CHOICE RESIDENTIAL FARMING ESTATE,

comprising a picturesque stone and half-timbered

SUSSEX FARMHOUSE

dating from the XIIIth century, and in a remarkably good state of preservation throughout. There is a wealth of original oak beams exposed in walls and ceilings, and there are oak and parquet floors. The accommodation includes lounge hall 16 ft. by 11 ft. 6 in., three reception rooms, ample domestic offices, six or eight bedrooms, large bathroom.

Modern Drainage. Unfailing Water Supply. Two Cottages. Two Good Homesteads.

Charming but inexpensive old-world GARDENS with flagged paths, valuable orchard, a large area of pasture and some arable; in all, 135 ACRES. FOR SALE, Privately, or by AUCTION later.—Inspected and recommended by the Auctioneers and Sole Agents, NORFOLK AND PRIOR, 131, Regent Street, W.1. Photos. (3102.)



Phone :
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HARRODS LD.

Telegram :
" Estate, 60 Harrods, London "

AUCTIONEERS, ESTATE AGENTS & SURVEYORS

HARRODS ESTATE SALE ROOMS

62 & 64, BROMPTON ROAD, S.W.1
(OPPOSITE MAIN PREMISES)



MODERATE PRICE FOR QUICK SALE.

CANTERBURY

EXCEEDINGLY COMFORTABLE FREEHOLD RESIDENCE

Occupying a beautiful situation on high ground, commanding excellent views.

The residence stands well back from the road, being approached by a long carriage drive, and contains vestibule lounge hall, two reception-rooms, billiard-room, nine bedrooms, four bathrooms, and complete offices.

Electric light, company's water and gas, modern drainage; telephone; two cottages; garage, stabling, model farmery, outbuildings.

MATURED AND INEXPENSIVE PLEASURE GROUNDS.

Including tennis lawn, flower beds and borders, kitchen garden, orchard and paddock—in all, 11 ACRES.

HARRODS LD., 62-64, Brompton Road, S.W.1.

HERTS

AMIDST FINE OPEN COUNTRY.

Noted for its sporting facilities, yet within easy reach of Bishops Stortford.

SACRIFICIAL PRICE WILL BE ACCEPTED

for this unique well-built and beautifully fitted RESIDENCE. Fine lounge hall 13 ft. by 18 ft., four good reception-rooms, ten bed and dressing rooms, two bathrooms, complete offices.

ELECTRIC LIGHT, CENTRAL HEATING, AMPLE WATER SUPPLY, GOOD DRAINAGE.

Garage, stabling for three.

ARTISTICALLY ARRANGED PLEASURE GROUNDS,

with grass walk 100 yds. in length, terrace, two tennis courts, walled kitchen garden, orchard and paddock; in all

SIX ACRES

NO REASONABLE OFFER REFUSED.

Recommended by the Sole Agents, HARRODS LD., 62-64, Brompton Road, S.W.1



2,000 GUINEAS.

UPPER REACHES OF THE THAMES

Five Minutes from Pangbourne Station.

ATTRACTIVE OLD-FASHIONED COUNTRY RESIDENCE

Conveniently situated, and amidst very pleasant surroundings. Contains three reception-rooms, lounge hall, twelve bed and dressing rooms, excellent offices, etc.

GAS, COMPANY'S WATER, MAIN DRAINAGE. GARAGE. BARN.

POSSESSION.

WELL-MATURED GROUNDS in keeping with the house.

Further particulars of the Agents, HARRODS LD., 62-64 BROMPTON ROAD, S.W.1.



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READING 221

NICHOLAS

4, ALBANY COURT YARD,
PICCADILLY, LONDON, W.1

TELEGRAMS:
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IN A LOVELY DISTRICT, WITHIN 24 MILES OF LONDON

TO BE SOLD

A Most Beautiful

OLD QUEEN ANNE AND GEORGIAN HOUSE

standing in a finely-timbered Park and with some of the most lovely gardens in the country
1½ miles from main line station with express service and near old-world market town.

MAGNIFICENT POSITION. 500 FEET ABOVE SEA.

Contains—very fine suite of spacious entertaining rooms, all with polished or parquet floors, about 20 bed and dressing rooms, 6 bathrooms; electric light, central heating, telephone: first class stabling and garages, walled gardens with glasshouses, wide spreading lawns for tennis and croquet, beautiful azalea and rhododendron gardens; bailiff's house, gardener's and chauffeur's cottages, set of model farm buildings, second set of farm buildings with a number of cottages, and about 173 acres of land, principally park and woodland.

The whole property in perfect order and ready for immediate occupation.

Full particulars of Messrs. NICHOLAS, 4, Albany Court Yard, Piccadilly, W.1.

DUKE OF BEAUFORT'S HUNT

WILTS.

Near main line station and a few miles of Chippenham.

CHARMING OLD STONE-BUILT GEORGIAN HOUSE

With eight bedrooms, bath, three reception-rooms. Extensive stabling and buildings, three cottages, lawns, fruit garden and paddock.

FOR SALE with 6½ ACRES. More land available.

Further particulars of Messrs. NICHOLAS, 4, Albany Court Yard, Piccadilly, W.1, and at Reading.



DELIGHTFUL OLD JACOBEOAN MANOR HOUSE

Standing in a fine park of 90 ACRES, and with shooting over 800 ACRES,

TO LET, UNFURNISHED

on lease.

Contains magnificently panelled hall and reception-rooms, about twenty bed and dressing-rooms on two floors, three bathrooms.

Excellent water supply, modern drainage, electric light, and central heating.

Stabling, garage, and laundry, and two cottages.

DELIGHTFUL OLD GROUNDS with clipped yew hedges and topiary work, tennis lawns and cricket ground, large fruit and vegetable gardens.

Hunting with three packs; small fishing river intersecting the Property.

Full particulars of Messrs. NICHOLAS, 4, Albany Court Yard, Piccadilly, W.1.



A VERY FINE OLD RED BRICK GEORGIAN HOUSE

Thoroughly modernised and well fitted, with 20 ACRES.

AT A VERY MODERATE PRICE

400 ft. above sea with fine views, not far from a station and within a few miles of St. Albans and 20 miles from London.

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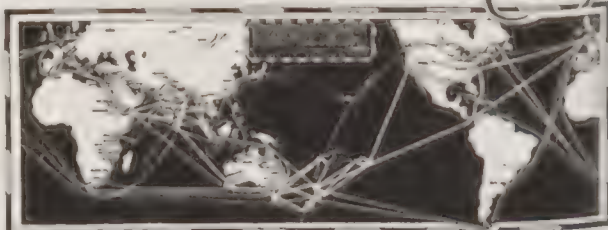
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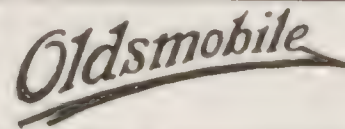
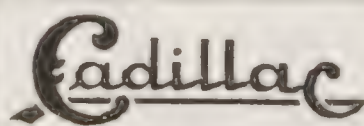
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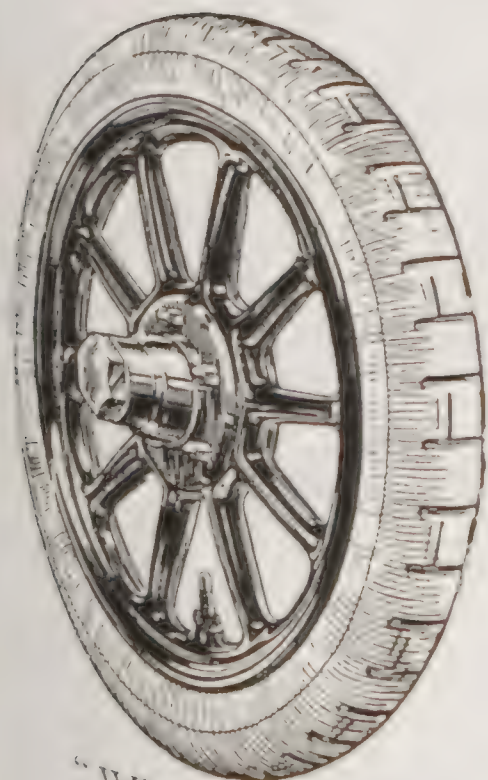
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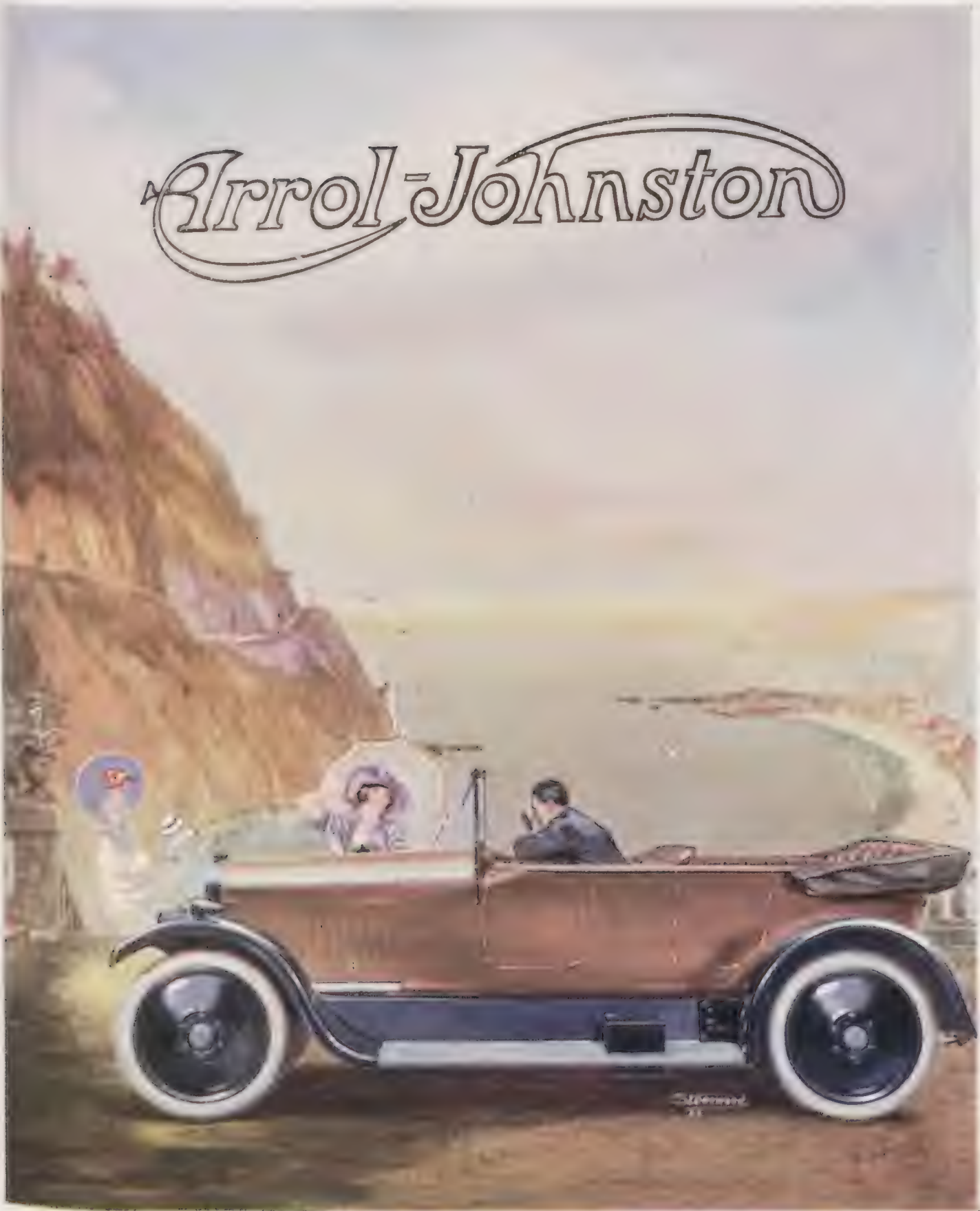
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THE MOTOR-OWNER

MAY
1922



VOL. III
NO. 36

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The Editor will be pleased to consider contributions of special interest to the car owner, provided they are of high quality and in every way suitable to the magazine. Short illustrated articles are preferred, dealing with any aspect of private motoring, either as regards touring or the home management of the car. First-class snapshots of roadside scenes or incidents are particularly desired. All photographs and sketches should be fully titled on the backs and bear the name and address of the sender.

Contributions should be addressed to the Editor of "The Motor-Owner," 10, Henrietta Street, W.C.2, and should be accompanied by a stamped, addressed envelope. While every effort will be made to return them if unsuitable, the Editor cannot hold himself responsible in case of loss or damage.

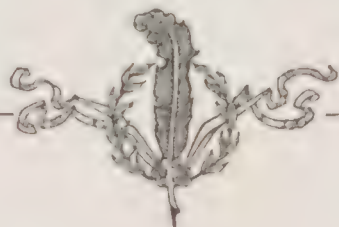
S U N S H I N E A N D S H A D O W .



Mrs. Miller Mundy, the wife of the well-known polo player, with her two children, Angela and Peter, taken at Shipley Hall, Derby, by Miss Compton Collier.

AFTER DUE REFLECTION.

"The Motor-Owner" considers Passing Events with an Open Mind.



MOTOR owners will view the proposed reforms in the automobile laws with very mixed feelings. The abolition of the speed limit is a doubtful blessing, in view of the fact that no one has ever paid serious attention to it, and that even the spasmodic legalised highway robbery in which the police indulged in certain notorious districts has died a natural death. On the other hand, the increase in the severity of the penalties for dangerous driving, coupled with the fact that an alleged offender may not be notified of an impending prosecution until three weeks have elapsed, when not only will he have forgotten the circumstances, but will have lost whatever opportunity he may have had of securing witnesses in his defence, is anything but pleasant. This is only law in the making, it is true; but it does not seem to us that all-round justice is secured by the proposed regulations as they stand. In the main the proposals are reasonable and acceptable to motorists—they are the common-sense alterations to existing law necessary to adapt it to modern requirements that everyone has been advocating for years. One good point is the clearing up of the phraseology of the "common danger" clause, under which alone it is proposed that motorists shall be judged. The suggested reading is as follows, the matter contained between parentheses being the circumlocutory phrasing of the original clause: "If any person drives a vehicle on a public highway recklessly or negligently, or at a speed or in a manner which is dangerous, having regard to all the circumstances of the case (including the nature, condition and use of the highway, and the amount of traffic which actually is at the time, or which might reasonably be expected to be, on the highway) he shall be guilty of an offence under this Act." This crisper phrasing is a distinct improvement. A standard form of cautionary sign recommending that "speed should

not exceed 20 miles an hour," or whatever speed is thought reasonable, is suggested in place of the present multitude of ten-mile limits.

THE INCREASED PENALTIES

The penalties proposed are a more frequent suspension of licences and maximum fines of £50 for a first offence (with optional suspension) and £100 for subsequent offences (with compulsory suspension), together with—in the latter case—either optional or additional imprisonment for a period not exceeding six months. Now, although this is a really serious matter for everyone concerned, the careful motor owner must realise that in unsafe or reckless hands the car is a dangerous weapon, and, provided that we could be certain that the new laws would be fairly administered, no one would have the slightest cause to complain. The essence of the matter is that the motorist must be guarded against malicious and unjust prosecution, and it is up to our protective organisations to see that the new Act, if it comes to pass, shall be so worded that the police shall not be able to take action except on absolutely certain grounds—and that, even then, the motorist shall have adequate opportunity of preparing his defence.

GRIEVANCES REMOVED.

The report of the Departmental Committee deals with most of the matters which motorists regard at present as grievances. It recommends, for instance, that heavy lorries, tractors and chars-à-bancs, which now obstruct faster traffic through the inability of the driver to hear or see overtaking vehicles, should be equipped with a sound receiver and transmitter or a suitable mirror. It recommends that persons "hanging on behind" a vehicle without the consent of the owner or driver shall be liable to penalisation; and it recommends that the non-production of a driving licence on the demand of a policeman shall

not be considered an offence provided that the licence is produced to the police authorities within three days. There is another side to the shield, however, and motorists will have to be a lot more careful in future as to the adequate illumination of the rear number plate, which the Committee considers essential, especially in view of the recommended abolition of the speed limit. The opinion is expressed that tests in mechanical knowledge or physical fitness before the issue of driving licences are not justified, but that every applicant for a licence should be required to sign a declaration that he is not, to the best of his knowledge, suffering from any disease or physical disability likely to render his driving a source of public danger.

SYSTEMATISED SIGNALLING.

One good effect likely to be secured by this report is the systematisation of drivers' signals. It is proposed to adopt a uniform type of driving licence throughout the country, in which will be included a list of "rules of the road." Among those rules are the following:—

6. Use the following driving signals:

(a) To stop: Right forearm to be held vertically.

(b) To turn to the right: Right arm to be held horizontally straight out.

These, it is considered, are the only essential signals, but it is recommended that the following should be used whenever possible:—

(a) To turn to the left: Right arm to be held horizontally and then swept to the left.

(b) To slow down: Right arm to be held horizontally, palm downward, and moved up and down.

(c) To invite to overtake: Right arm to be held out below the horizontal and moved from back to front.

These are the normal, accepted signals used by most good drivers even now, and we advise our readers, if they are not acquainted with them already, to begin practising in both "sending" and "receiving" right away.

PREVENTION OF WASTEFUL EXPENDITURE.

ROADS, AND ROADS! AND ROADS!!

The following article is by Mr. E. H. Fryer, the head of the Road Department of the Automobile Association, who was requested by the Editor to give his views on "Long-Delayed Road Improvements," an article which appeared in last month's issue.

"LONG-DELAYED Road Improvements" is a welcome contribution to a subject which can only profit from publicity, and, though one cannot agree with every point of the writer's criticism, especially his scornful reference to certain large road undertakings, the case is well put.

But I think it is only fair to regard the Road as the product of an ancient system—of an archaic system, an inadequate system. From that angle one sees the physical impossibility of reconstructing instantaneously an adequate road system. Before we can get highways fit for traffic—in *esse* and in *posse*—the administrative system must be evolutionised; and that is what recent road control legislation seeks to effect. If those who want a revolution will reflect upon its cost and possibly reactionary effect, they must be convinced of its impracticability.

Dr. Nuttall tells us a Road is a public highway for travelling. A Highway, he also says, is a public road; a way open to all passengers. Which is what the road user is entitled to expect—"a way open" to him and his motor, whether it be private car or utility vehicle. As an ideal, the phrase serves.

The majority of engineers are Scots—probably because North of the Border life consists largely of overcoming difficulties of climate, geography and finance. No better temperament can be found for solving the shifting problem of road construction, maintenance and improvement.

To deal with the question of roads would require volumes rather than an article, and for that reason it seems to me that the best way of acceding to the Editor's request is to touch briefly upon some of the points dealt with by the contributor of the article in question, and then attempt to show by comparison "some of the things that have been done" and "that have been left undone."

By using comparison we find that

however much we may condemn our roads, they are still the best in the world. Our visitors when being driven by us tell us so, and are surprised at our grumblings. Naturally we only show them our best. On the other hand, a comparison between the roads of one English county and an adjoining one leads us to the opinion that the surveyor of the one should have his salary (and his territory) doubled, whereas the other should be pensioned.

Continuous good roads, sufficient to carry the traffic, will never be obtained, except by effort. Effort by the Central Government, by the Local Government, by the user, and by those who are carried, or whose goods are carried, on the road. Standards are changing the whole time. There is no datum line.

Each of us has his or her responsibility (and vote), both parliamentary and local, which, if wisely asserted in unison, can accomplish great things. Criticism alone cannot carry us very far.

The writer of "Long-Delayed Road Improvements" very rightly touches on the question of finance, and, though it is only fair that the greatest user should pay the most, it is also fair that he should pay according to that user. [See the Departmental Committee on Taxation and Regulation of Road Vehicles in Great Britain and Ireland, Minority Report by Major Stenson Cooke, March, 1920.] The fact that there might be difficulties in collecting a tax on such a basis is a detail. Difficulties are merely to be overcome, hence, as already stated, the prominence of the Scottish engineer.

Though finance is a big thing, the prevention of wasteful expenditure is of far greater importance to-day, because even were every penny wisely laid out, nine-tenths of the necessitous works would be left still untouched. Hence the paramount importance of preserving the broad principles of road construction and road traffic. Of theories and practices there are many—both good and bad; and by

comparing the road costs and road results of different districts, it is easy to separate the sheep from the goats.

Constructive criticism is good—as the writer of the previous article admits; and, though he submits that "something that may appeal to the bureaucratic mind is the suggestion that some control should be exercised over local authorities and their instruments, or implements, the surveyors," it may be taken as a truism that the less competent (the tactless might say the more incompetent) resent criticism and, therefore, will not—except under compulsion—come into any scheme, which may tend to put them under a higher authority. Indeed to practise compulsion would be reactionary in effect and is not to be preferred to the evolutionary process to which I referred as being the best suited to the needs of the situation.

Roads, once parochial, are now a national problem, but in order to demonstrate, with full significance, that the progress of development of highway administration has not advanced to the extent some people think, and we all desire, I append a tabulation comparing (without much contrast, alas!) the conditions of travel, mediæval and modern.

The complaint of the motorist is but an echo down the ages.

It would have been far easier to illustrate my points by actual experience of particular roads and particular highway authorities, but that would have been invidious.

A comparison of different counties (taking into account acreage, population, rateable value, mileage of main roads, traffic volume, cost of roads per mile and quality of the highways) shows that administration is more important than the mere provision of money. It is for those who are appointed to assure themselves that things are as they should be. The A.A. decided that after the war a reasonable time must be given before results could be obtained; but that time is by way of expiring.

E. H. F.

THEN—AND NOW.

Extracts from Old Records, with Dates

BAD ROADS.

July 27th, 1667.—No travelling in the road or streets in London, for dust.

February 23rd, 1668.—Thence homeward, and through to Mile End for a little ayre; but the ways mighty dirty.

January 9th, 1667.—In a hackney coach to White Hall, the way being most horribly bad.

May 23rd, 1668.—And so away to Bishops Stortford. The ways are mighty full of water, so as hardly to be passed.

1803.—The road is very bad.

1803.—Is impassable in winter.

1803.—In many places not fit for a carriage.

SIGNS.

June 15th, 1668.—Rode all day with some trouble, for fear of our being out of our way, over the Downes.

1753.—Coaches with their companies have been often forced to wait at the appearance of two or three such turnings whilst they have sent their servants little journeys up the respective uncertain ways, only to inquire which of them ought to be pursued.

1835.—The surveyor shall—with the consent of the inhabitants or by direction of the Justices—cause to be erected or fixed in the most convenient place where two or more ways meet, a stone or post, with inscriptions thereon in large, legible letters containing the name of the next town, etc.

RESTRICTIONS, FINANCIAL AND OTHERWISE.

1367.—The governors forbade "carts shod with iron" to enter the town, on pain of a fine of 12d.

September, 1621.—The Justices of Surrey, Essex, Middlesex, Hertford, Cambridge, and Huntingdon, were ordered to take steps for the amendment of the roads before the winter set in.

1618.—The decay of highways and bridges was alleged to be due to the common carriers who had four-wheeled wagons, drawn by eight, nine or ten horses, and carrying 60 cwt. or 70 cwt. at a time, whereas previously they only carried 20 cwt., resulted in a proclamation that no four-wheeled wagon was to be drawn by more than five horses.

1810.—Parliament voted £10,000 to enable the necessary works to be begun in improving the Holyhead Road. The work was really a national one, to be carried out at the national cost. Telford was consulted. A complete survey was made in 1811, but nothing was done for several years.

BRIDGES.

1803.—The river must be forded twice, and after heavy rains is sometimes too deep.

1803.—This river can only be crossed on horseback at low water: here is no horse ferry boat.

GATES.

1803.—The direct road is very bad, with a number of gates to open, and a watery lane to pass.

Extracts from Letters and Reports Received by the Road Department of the A.A. During the last Few Months.

* Member. † Surveyor. ‡ A.A. Staff Report.

BAD ROADS.

April 3rd, 1922.—For about two miles the roads are cut up and in such a dangerous state that it's almost impossible to get through at all.*

April 24th, 1922.—The roads are also in the most awful state, and as fast as they mend them they are broken up again.*

I question the financial reason given to excuse defaulting authorities. If your correspondent takes a week-end tour by road for a few hundred miles he will find that most of the well-organised districts have already made up the lee-way; in others he will still find the ruts, inches deep, caused by timber hauling and other war services, just as they were in 1916.†

SIGNS.

April 9th, 1922.—Have made certain arrangements with the surveyor for the erection of direction arms.‡

April 7th, 1922.—In order to prevent our members getting on to this road in future, we have arranged with the surveyor to put large boards on to the two approaches from the end of the road, bearing the words, "This Road is Impracticable for Motorists."‡

April 10th, 1922.—My Highways Committee have decided to defer the consideration of erecting warning signs for the present, other than approaching schools.†

April 10th, 1922.—I do not think the new signs anything like so good or so likely to attract as the warnings provided by your Association.†

RESTRICTIONS, FINANCIAL AND OTHERWISE.

The obstacles in the way of improving our roads . . . are mostly financial or engineering. The help (Road Board and M. of T.) received made it possible to commence a highway reform in this particular district, which has never ceased. It has not cost the ratepayers a penny—on the contrary, it is saving them every year many thousands of pounds. What are the financial results.

Expenditure per M. for 5 years to	Equal to a rate of
March, 1910—£251	10'7d. per £
Ditto for 1915—£235	9'91d. per £
Ditto for 1921, deducting subsidy from	
M. of T.—£221	9'0d. per £

The problem which sooner or later has to be faced by almost every road engineer—that of adapting a long mileage of average roads for modern traffic without undue cost to the ratepayer. . . . On this question the writer has always been an optimist.†

June 14th, 1921.—It has been impossible to keep the road with anything like a surface fit for fast and light motor traffic.†

BRIDGES.

February 23rd, 1922.—My Council would prefer to retain the tolls and bear part of the cost of widening bridge.†

December 10th, 1921.—The road is kept in repair to the approximate extent of the revenue received from the tolls, viz.: 6d. per car.‡

GATES.

January 1st, 1920.—We are continually dealing with complaints relative to the inconvenience caused by gates across the highway.‡

THE OPENING OF THE GRASS COURT SEASON.

THE LURE OF LAWN TENNIS.

By F. R. Burrow.

The Merry Month of May and What it Means to the Enthusiastic Player.

THE lawn tennis player looks forward, I suppose, to May more than to any month of the year. September may possibly find him satisfied with his season's play; but more frequently, perhaps, it leaves him a little depressed, because desire has outrun performance; he has not improved so much as he expected, and, any way, the season is over, and an occasional knock on a "hard" court is all there is to look forward to for seven long months. But in May he has the whole summer before him, and hope is invariably successful in winning its annual triumph over experience. Alike to those who look forward eagerly to the opening of the courts in the public parks, to those who shun the public gaze in the privacy of their own gardens, to the members of the hundreds of clubs, and to the rapidly increasing army of tournament players, May gives a promise sweet enough in itself to take all the bitterness out of the possibility of its non-fulfilment.

For in May the "grass-court" season opens; and however glad lawn tennis players may be to be able to get plenty of "hard-court" tennis in the winter months, they are gladder still to get back to grass once more—to the real lawn tennis. The fresh green turf is far more pleasant to the eye, and to the foot, than the dusty brick-red of the hard courts; and if its beauties may be at times a little bit marred by an occasional bad bounce, forgiveness is easy. Hard courts improve a player's game, undoubtedly, because of the greater uniformity of pace and of bound; but nineteen players out of twenty get far more enjoyment out of the game on grass. At any rate, I have times out of number heard people saying, at the Surbiton tournament (which opens the summer season), "Isn't it jolly to get back to grass again?" but never



A. H. Fyze, Sir G. A. Thomas, F. Gordon Lowe and Wallis Myers break off for a chat at the London Country Club, which is rapidly becoming a most popular objective for motoring lawn tennis players.



B. J. C. Norton, another notable figure on the courts of the London Country Club.

once has anybody said to me at Eastbourne (which closes it), "Thank goodness we shall be getting back to hard courts next week!"

To the immense mass of lawn tennis players the tournaments which are on the list for the next five months—not far short of a couple of hundred in number—make only a partial appeal. Most of these players are more concerned with enjoying their game than with improving their play; but to more and more, every year, of the better players among them comes the desire to venture into competitive tennis, and the spread of competition which 1922 will witness among the public parks players will inevitably tend to increase the numbers of those who will enter for "Open" tournaments, in which some of them have for the last season or two enjoyed a certain amount of success. And even those whose ambitions don't soar so high as this take, nowadays, a good deal of interest in the doings of the "crack" players. Only a day or two ago I overheard an animated discussion in a Tube carriage, between a couple of young artists, not about the respective merits of Chelsea and the Arsenal, as one might have expected, but about the draw for the "Davis Cup"—the International Lawn Tennis Championship. They were canvassing the probable construction of our team for this event and wondering what sort of chance of success it would have. It surprised me to find that they had both visited the championships at Wimbledon last year, and evidently understood quite a lot about the game and its players. And that there are many more like them I have no doubt, for I suppose at least half a million people will be playing in the parks this year; and it is only natural that, though they may never learn to play well themselves they should take a keen and increasing interest in those who do play well.

EPOCH-MAKING CHANGES.

And those who play even moderately well and want to play better, have the opportunity of improving their game in the constant succession of tournaments held all over the country from May to September. Even if success does not come their way, the very fact of playing against strangers is bound to be instructive. Nobody can ever become good at lawn tennis if he goes on for ever playing against people whom he knows and can beat; because he will never learn anything from beating them. He will learn a good deal, if he is blessed with common sense, from playing in a few tournaments against people he has never seen before and against whom it takes him all his time to win even a few games. Besides, at a tournament, there is much to be learnt by looking on and studying the strokes, the tactics, and especially the foot-work, of really good players.

Of all the tournaments and competitions of the year the two which make the widest appeal to the popular imagination are the championships at Wimbledon and the fight for the Davis Cup. Nothing demonstrates the world-wide spread of lawn tennis so well as the Davis Cup competition. It is a pretty good tribute to the merits of a game that is not yet fifty years old that for its international championship no fewer than fifteen different nations should this year be putting teams in the field. I think Dr. Samuel Johnson, whose

"... extensive view
Surveyed mankind from China to
Peru"

must have had a prescience of the Davis Cup. Here is the list of challengers: Denmark, Canada, France, Belgium, Australasia, Hawaii, Czechoslovakia, Spain, the Philippines, Rumania, India, Italy, Japan, and the British Isles. But if the survivor of the qualifying stages of the competition manages to dispossess the United States of the Cup I shall certainly be surprised; for at the present time the only difficulty the choosers of the United States team are likely to encounter lies, not in the finding of a strong enough side, but in picking the three or four best men from a multiplicity of candidates of almost equal skill. The challenging nations, on the other hand, will mostly be much more worried about the former problem than the latter. The surviving team should

come from Australasia, Japan, or the British Isles.

But since many of the qualifying matches, and in any case the challenge round, of the Davis Cup will be played in America, our own championship meeting at Wimbledon is of more immediate interest to players in this country. At least one great change is being made this year—the abolition of the challenge rounds in the men's singles, ladies' singles, and men's

doubles championships. This is a break with a tradition as old as the game; but it is a change for the better because it will make the conditions fairer. Hitherto the winner of the "All-Comers" in these events has sometimes been too exhausted by the strain of four or five extremely strenuous matches to do himself justice against the holder of the championship, who has been "standing out," awaiting the challenge of the survivor of more than a hundred aspirants to his title. In future the holder will have to go through the "rough-and-tumble" like any other competitor; and this will not only be fairer in itself, but will add a good deal of interest to the earlier stages of the championships, instead of keeping all the real excitement for the last few days of the meeting.

An equally epoch-making change will be made at the championships if, as at the time of writing seems to be probable, the venue of the meeting is changed from the ground of the All-England Club, whose historic "Centre Court" has seen the triumphs of all the great players of the past from the days of the Renshaws down to the present, to the new ground in Wimbledon Park, where a vast "Centre Court" will accommodate a full fourteen thousand spectators—more than double the number that the stands and "surround" of the old court could hold at its tightest packing. To leave the old ground, with its memories, will be saddening for many; but for the last few years it has become far too small to accommodate in comfort anything like the number of people who wanted to watch the crack players of the world. Foreign competitors, too, of whom every year finds an increasing number at Wimbledon, will not regret the change, because they will no longer be worried with the roar and rattle of the passing trains, only a few yards from the courts in which they are endeavouring to do credit to themselves and their country.

It has been decided by the Lawn Tennis Committee of the London Country Club that the dates of the competition for the Challenge Cup presented by THE MOTOR-OWNER shall be Saturday and Sunday, July 8th and 9th, the entry list to close at first post, July 7th. The competition will be on handicap, the handicapping being done by the Lawn Tennis Committee.



A. H. Fyfe, whose agility and skill brought him fame last season, playing on the splendidly-kept courts of the London Country Club at Hendon.



F. Gordon Lowe "puts one over" on his opponent.

STARS OF THE STAGE ENJOY THE LUXURY

Mrs. Edward Joicey, known to fame as Violet Lorraine, with her friend Miss Mabel Green.
(Photo by Miss Compton Collier.)



Y THE LUXURY OF BEING THEMSELVES.

*The Lady of the Rose, Miss Phyllis Dare, makes do
with lesser blooms until the season's more advanced.
(Photo by Miss Compton Collier.)*



A SPOT-CHANGING DEMONSTRATION.



OUR photographs show Major Allen, the famous big game hunter, engaged in capturing wild animals alive and uninjured for exhibition in menageries and zoos. The leopard in the upper photograph does not appear to have Major Allen's compunction in regard to causing injury—but we are not told how the hunter escaped from an apparently hopeless position. The wolf, on the right also appears anything but friendly. Major Allen's method of roping a leopard is illustrated on the left. These pictures are "stills" taken in conjunction with a series of four films distributed by Film Booking Offices, Ltd.



INEXPENSIVE INDULGENCE.

POLO FROM THE STATION POINT OF VIEW.

By "Chukker."

A Comparison of Various Aspects of the Game as played at Home and in India.

WITHIN the last decade polo has gained many followers in Britain, France and America. In England the formation of many new provincial polo clubs, each with its secretary ever on the look-out for new members, has brought the game and inter-district "gymkhanas" within the reach of pony owners all over the country. While this growing popularity undoubtedly lessens the charges falling on individual players, polo is still an expensive game, and is likely to remain so for some time. This is not due so much to the cost, maintenance, and insurance of ponies as to the difficulty of acquiring and expense of upkeep of a level ground three hundred yards by two hundred, and to the high charges at present in force on the railway for the transport of horse boxes—charges which are necessarily incurred whenever inter-club matches are played.

In India, on the other hand, polo has been the favourite game of everyone ever since the British settled at Fort William. The army subaltern and the newly-joined civilian are alike expected to learn to play polo as soon as they arrive in the country. The step from being the possessor of a pony of the requisite height, 14.2 hands or less, to joining a station polo club is an easy and inexpensive one. The station polo player may, even in these days, easily maintain a couple of ponies in proper condition, pay his polo club subscription, and buy his polo sticks and accessories for £95 a year. A beginner, with one pony, will be able to play six "chukkers" a week in summer and nine in winter for £55 a year. He will also be able in the hunting and pigsticking, with the added cost of a hog spear and subscription to the pack fund.

After several years' membership in a station club, should he become a keen player and the possessor of three or four ponies and a light touring car, he will probably join one of the sixty odd larger clubs which flourish under

the ægis of the Indian Polo Association, and, receiving a handicap in the combined list, will be eligible to take part in first or second class polo in the inter-district gymkhanas. In the average station polo club, however, with a membership of perhaps twenty, as many players will be found with one pony as there are with two, while the lucky man with more will find that he can get all the polo he wants with a stud of four.

There are several conditions which bring polo within the reach of the man of ordinary means in India. Polo grounds in the plains are frequently found practically ready-made. Labour being cheap, many polo grounds have been put thoroughly in order at existing district headquarters for £100 or less, and are maintained for £60 to £100 a year.

Some years ago I was engaged, with fifteen other officers, in land settlement work in Northern Bengal. Each of us had a pony, and we established our headquarters in tents near a promising polo ground, on which we played regularly thrice a week for three months. The ground received all the attention it required from the coolies attached to our camp.

The majority of players in England buy trained ponies, the reason for this being that a pony's abilities in other directions are no measure of his probable success at polo. Polo ponies are generally at their best between six and twelve years of age, and are nearly always broken in to "stick and ball," not when very young, but between the ages of five and seven. In India, the value of a sound pony, trained to play polo, is enhanced by £10 or more, according to its speed, ability to follow the ball at the right distance, and capacity in "riding off" an opponent. The "home-made" polo pony, however, gives his owner, provided he is a horseman of some experience, much greater satisfaction, insomuch as what pony and rider have learned from each other during training is used to the best advantage

on the polo ground. A sound five-year-old suitable for breaking in may be had nowadays for £50 or even less. Then as transport of ponies in horse-boxes on Indian railways costs but 3d. a mile, and grooms (syces) travel third class at 1d. per mile, inter-district tournaments involve little additional expense.

So far as the game itself is concerned, it is significant that the earliest known ball game in the hill districts of India, particularly in Tibet and in parts of Sikkim and Nepal, was played on horseback, and that the ball was called "pulu," a Tibetan word from which we get "polo." It was played as a kind of hockey on horseback, with wooden sticks, by as many as eleven or twelve players a side. In a country where the men were more at home on horseback than on foot it was natural that their sport should take this form, and yet in their pony races jockeys were, and in several places still are, entirely dispensed with and the ponies run as whippets do in England. Hill people take to the saddle in childhood much as ducks take to water. To this day, the instinct to mount a pony and chase a ball with a stick is so deeply engrained in them that if one were to throw a polo ball down the street of a native village, in a very short space of time every available pony would have a rider, and every rider a stick, and the ball would be pursued from end to end of the street until both ponies and riders were too tired to continue.

The people of the plains, on the other hand, make bad horsemen, and are not as a rule to be trusted to look after horses. Grooms, training staffs and riding boys are invariably recruited from the hills or "up-country" districts. Many of these become exceedingly proficient in polo in much the same way as caddies on a Scottish golf course pick up the national game.

The composition of the average station club is often, in consequence, very mixed. At D—, in Bengal, where polo is played all the year round, we had one or two native regiments

AMUSING INCIDENTS.



An exciting incident in a "chukker" at Hurlingham.

stationed for several months every year. During this period the polo club consisted of the two officers commanding and twelve captains and subalterns, the Divisional Commissioner and eight civilians, the Nawab of the district, four policemen and two or three jute mill managers. With this number we were able to play four fast and four slow "chukkers" each polo day.

During the "off season," when the regiments were away, our numbers were sadly reduced, and we retained a couple of Manipuris to fill in the gaps. Both were expert horsemen and very keen on the game—so keen, in fact, that it was dangerous to play one against the other. On one occasion both raced for the ball from opposite sides of the field, each with his stick uplifted and head down. So intent were they on the ball that neither saw anything else until their heads met with a resounding crack heard by most of us. We fully expected that at least one of them would drop dead, and were relieved to see both trot off the field. We were astonished, however, to see both turn up next polo day unconcernedly, with scarcely a bruise, but they were ever after "played" on the same side.

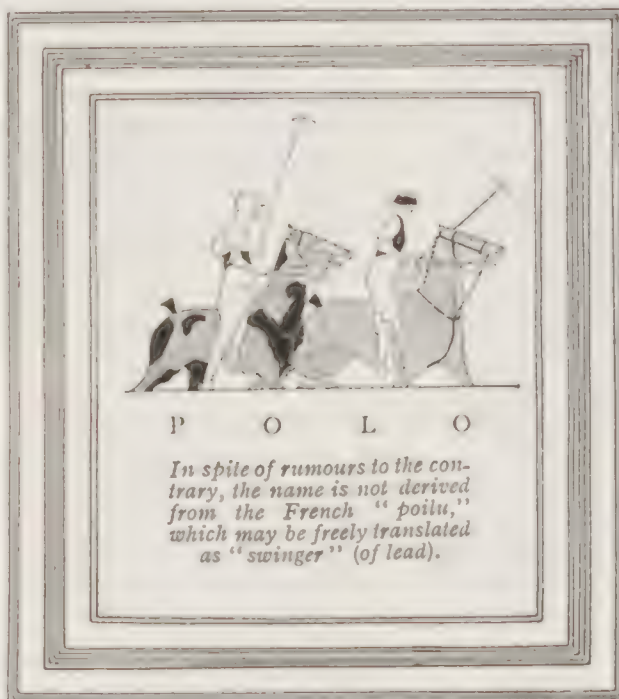
Another occasional player was an Indian subadar major, whose keenness for polo was always in conflict with an inborn sense of courtesy. While the chukker was in progress he

would make for the ball with terrifying war whoops. If he missed, he would ejaculate, "Damn bad," the only two English words he knew, and always he would apologise for his exuberance at the close of the chukker.

When polo was adopted by the British in India it was at first played "five-a-side." Upon its introduction to Britain and America, this number was everywhere reduced to four-a-side. The development of the game has differed somewhat in detail in the three countries. For a long time in

America individual play counted for more than team work, and it was often played as a three-a-side game. The ground, too, was smaller, being only 266 yards by 150. In India, team work counts for more than individual play. In both England and America six "chukkers" of ten minutes each constitute a match, a tie being decided by playing an extra chukker. In India, in order to minimise this contingency, the subsidiary goal was introduced. The additional goal line extends for eleven feet on either side of the centre goal, a subsidiary goal counting half a goal. Players are handicapped by the Indian Polo Association by being credited with the number of goals they are considered to be "worth" to their side. The handicaps of the players of each side are added, and the total handicap of the weaker side is subtracted from that of the stronger side. The difference is credited as so many goals to the weaker side.

Polo ponies soon take as keen an interest in the game as their riders, and pursue the game with intelligence and obvious enjoyment. They occasionally carry their knowledge of polo outside the polo ground. Riding a polo pony one day along a country road at a canter, I chanced to flick at an object on the road. I missed, and the pony flashed round in its own length, while I hit the ground.



AUTOMOBILE VANITY.

Concerning the Soul-endangering Practice of making Motor Cars pleasing to the Eye.

By Captain P. A. Barron.

WHEN professional moralists pass through a silly season in which the world is not so naughty as they could wish, they usually find fault with the ladies for trying to make themselves beautiful. They point out that they are either too extravagant or too niggardly with their draperies, moralize over the alleged fact that beauty is only as deep as a thin stratum of emollient cream, and betray knowledge which appears to imply intimate study of the frailties of humanity.

It is quite time they turned their attention to new subjects for their puritanical puerilities. May I suggest that some of our Depressed Deans and Dismal Deacons, also some Councillors who review seaside bathing costumes with the assistance of high-powered prismatic binoculars, should read us a few homilies on the sinfulness, worldliness, and soul-endangering practice of making motor cars pleasing to the eyes of those who are puffed with pride?

In the hope of helping some reformer in his search for naughtiness in a rather pleasant world, I will indicate a few heads upon which he might base his discourse.

Firstly, dearly beloved motorists, if we search our hearts can we deny that this pandering to the sinful pride of the eye makes us overlook those higher moral qualities of motor kind, such as temperance in the consumption of spirituous liquor, and modesty of demeanour? Does not the unhal- lowed beauty of the body, the fairness of complexion, and the brazen wink- ing, too often lure us from our true loves? Are we not made unfaithful, and do we not covet our neighbour's car?

Consider the parable of the motorist who strayed in the paths of vanity. Once he was happy. He owned an old, old car which had rewarded him with faithful service. She was virtuous, and looked like it, for, truth to tell, she was extremely plain. She had a little bonnet, with lots of scratches on it, and her complexion had been

marred by the suns of many summers. But her heart was true.

Her owner called her pet names, such as "Violet," on account of her perfume, or "Mary." His friends called her the "Pickford van."

And he loved her, for in all weathers she was ready for the road. In summer she carried him to green pastures and the banks of still waters, and there he and favoured friends would bask in sunshine, brew tea, and partake of the contents of a shabby but well-stuffed picnic basket. She took him to the waterfalls of Wales, and the lakes and mountains of Scotland. She might be powdered with dust, caked with mud, or her complexion mottled with the big raindrops, which in the Highlands are called "mists" to distinguish them from cloud-bursts or water-spouts. These things did not matter. "Violet" could be left in the open all night with the grime of honourable travel. If more rain fell, it would wash her; if the mud dried, it would hide the dents in her sides. She did not mind; her owner did not mind.

While other touring motorists were paying goodly moneys to have their cars massaged, manicured and lotioned,

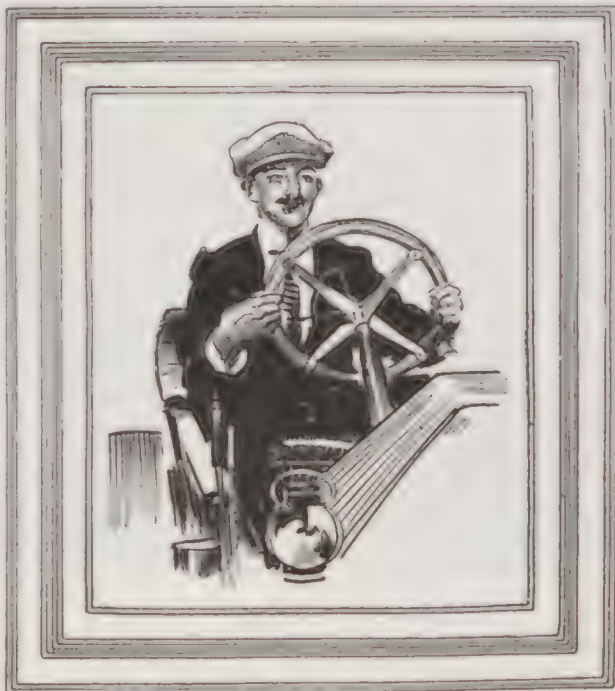
"Violet" would be over the hills and far away. Other motorists whose cars had just passed through an elaborate toilet might hesitate to call them from their boudoirs if skies were grey. The husband of "Violet" was not afraid of the weather. Rain would merely mitigate her lovable grubbiness. She was a true daughter of the soil, and why should he object to her carrying some of her native land?

Those were days of healthy, care-free enjoyment, but they did not last for ever. "Violet," the modest and the faithful, was sold. He who had cherished her became untrue. He purchased a car that had coachwork of a surface like unto glass, an instrument board that looked like the window of a West End jeweller's shop, lamps which blinded other motorists at night, and a gleaming bonnet which dazzled the driver on sunny days.

Her owner built a lordly garage for her at vast expense, and erstwhile, with sponges, soft cloths, and leather of the chamois, with polishing creams and pastes, he would quicken her beauty with art. If a fly rested on one of her wings, he would detect its footmarks and remove them.

Morning hours once spent on the broad highway are now devoted to the beauty culture of this spoiled queen of the garage. If the weather is very fine she may be driven gently to some hotel at which she may be parked among her peers what time their owners take tea in crowded rooms. Woods and picnic baskets, plebeian spirit stoves and tea kettles that sing by lake sides, belong to a happy, disreputable past. He who was once the god in the car, which was his willing servant, is now a slave, a groom, a washing and polishing menial. If his spirit revolts, he will hire a chauffeur, and then the happy, care-free days in which he tasted driving joys will have passed for ever.

Yet there is some hope for him. He may have the good fortune before it is too late to have a collision which will destroy the fatal beauty of his car.



ART AND THE MASCOT.

A Truly Handsome Embellishment for a Handsome Car.

ART is one of the most debatable subjects under the sun. To a large extent it is a matter of individual taste. Someone draws a conglomeration of monstrous misshapen lines and calls it "A Cubist Venus," and it is at once acclaimed by many as a criterion of all that is best in art. Other folk say it looks more like "A Bombed Submarine," and aver with even more vehemence that it is a pathetic prostitution of everything which art really stands for: and so on. Yet, despite these highly antagonistic viewpoints, there are certain defined lines upon which more or less general agreement may be anticipated. For example, you would have to be brave or foolish (or both) to deny the beauty of the Venus de Milo, even though she has no arms to speak of. Similarly you would have to be brave or foolish (or both) to claim that the average motor mascot was a thing of beauty and a joy for ever. And this is where we commence an interesting story.

Why spoil the car for the proverbial pennorth o' tar? Some motor mascots are fairly pleasing when viewed from across the road. But if you look at them from close quarters they are frankly terrible. The face that should be charming is at once a fiendish monstrosity. Search where you will—that which should be pleasing is unpleasant. Even in the case of those which from their general contour purport to be something really artistic, the very essence of art is immediately belied so soon as you study the detail.

This state of affairs was a defect which THE MOTOR-OWNER had long recognised. We endeavour to represent all that is best in art in relation

to motoring, sports, pastimes and travel. It was galling to our sense of artistry to note the lack of art in motor mascots. Yet it was not, nor is not, our province to produce one that should be really artistic. So we did the next best thing we could do, and produced a cover for our last show number which portrayed a really artistic mascot, a life study of an eminent model, taken by Mr. Elwin Neame. As a matter of inner history, it is by no means so easy to obtain an artistic pose suitably to express the speed of motoring and that indefinable *joie de vivre* as one would imagine. In point of fact, quite

a large number of poses were taken before the eagle eye of our art editor was mollified. But we think the position finally made represents a really artistic and pleasing pose.

So far you have chapter one of this interesting little story. The result of our efforts was duly appraised on all sides. But nothing further happened. Then, recently, chapter two began to appear on the horizon. No less famous a firm than Messrs. Mappin and Webb, Ltd., approached us for permission to register the design and produce it as a mascot, a proposition to which we gladly acceded, knowing their resources and fame for the production of bronzes and statuettes of one type and another. And that is how THE MOTOR-OWNER mascot comes into being.

And it is here that we would ask you to note the marked difference between this mascot and the ordinary ones of everyday commerce.

Every single MOTOR-OWNER mascot is produced solely by Messrs. Mappin and Webb, Ltd., and is hand chased and hand finished throughout. It is a work of art, equally suitable as a statuette for your table as for the mascot of your car.

It is not necessary further to eulogise the quality of the work done by Messrs. Mappin and Webb, Ltd., in this connection, as their fame is world-wide. We should, however, mention that the "M.O." has naturally no financial interest in the matter whatsoever. That is not our trade. Our desire was that a handsome car should be equipped with a handsome mascot, and we are satisfied with having evolved a design which renders real art possible.



Reproduction from a photograph of the actual "Motor-Owner" Mascot, produced from the original design on the opposite page.

• THE ORIGINAL DESIGN FOR "THE MOTOR-OWNER" MASCOT.



The Motor Owner Mascot

THE ROYAL BROOKLANDS MEETING.

Some Details of the Programme for the Brooklands Meeting which the Duke of York will Honour.

FOR the first time in the fifteen-year history of the Brooklands Motor Racing Track, a meeting is to be honoured by the presence of Royalty, H.R.H. the Duke of York having promised to be present at the Essex Motor Club's Royal meeting on May 20th. His Royal Highness, as is well known, is an enthusiastic motorist, and we understand that not only is he looking forward to his first Brooklands meeting, but has been very largely responsible for the general arrangements.

The meeting, needless to say, is expected to produce a record attendance at the track, exceeding even that of the Two Hundred Miles Race last year. Those who know the organising capacity of the leading spirits of the Essex M.C. will feel no doubt of the success of the meeting.

The entire proceeds of the meeting will be devoted to the funds of the Middlesex Hospital and the Industrial Welfare Society, London, two organisations selected by the Duke of York for the purpose.

Briefly, the programme is as follows:

CAR EVENTS.

1. *The Earl of Athlone Lightning Handicap.* Distance about $8\frac{1}{2}$ miles. For cars the minimum speed of which is 90 m.p.h. or more.
2. *The Earl of Athlone Lightning Long Handicap.* Distance about 11 miles. For cars the minimum speed of which is 90 m.p.h. or more.
3. *The Duke of York Handicap.* Distance about $8\frac{1}{2}$ miles. For cars exceeding 1,400 c.c. engine capacity.
4. *The Duke of York Long Handicap.* Distance about 11 miles. For cars exceeding 1,400 c.c. engine capacity.
5. *The Essex Junior Handicap.* Distance about $5\frac{3}{4}$ miles. For cars exceeding 1,120 c.c. and not exceeding 1,500 c.c. engine capacity.
6. *The Essex Junior Long Handicap.* Distance about $8\frac{1}{2}$ miles. For cars exceeding 1,120 c.c. and



A favourite portrait of the Duke of York, the patron of the Essex Motor Club's Brooklands race meeting on May 20th. (Photo by Vandyke.)

The Earl of Athlone, uncle of the Duke of York, and chairman of the Organising Committee for the Royal Meeting. (Photo by Claude Harris.)



not exceeding 1,500 c.c. engine capacity.

MOTOR CYCLE EVENTS.

1. *The Duke of York 3-lap Junior Handicap.* Distance about $8\frac{1}{2}$ miles. For motor cycles (solo) not exceeding 500 c.c.
2. *The Duke of York 3-lap Senior Handicap.* Distance about $8\frac{1}{2}$ miles. For motor cycles (solo) not exceeding 1,000 c.c.
3. *The Essex 3-lap Passenger Handicap.* Distance about $8\frac{1}{2}$ miles. For motor cycles with side-cars, and 3 or 4-wheeled cycle cars. Motor cycles with side-cars not to exceed 1,000 c.c. Cycle cars not to exceed 1,100 c.c. Passengers to be carried.

The prizes in the nine events consist of gold, silver and bronze medals commemorative of the occasion, of a special design approved by the Duke of York. Entrance fees are £3 3s. for the car events and 10s. 6d. for the motor cycle races, and it should be noted that the entry lists close definitely at 5 p.m. on May 6th.

So much for intending competitors. For spectators a number of special arrangements have been made. Admission to the track will be 5s. on the day of the meeting, but tickets will be sold in advance at 4s. each. Five shillings will be charged for the admission of cars and half a crown for motor cycles.

It is interesting to note that a 4 h.p. Harley Davidson motor cycle has been presented to the Essex Motor Club. This will be awarded in connection with the issue of tickets in advance, under conditions to be supervised by the Earl of Athlone, who has presided over the Organising Committee of the meeting.

In itself this Royal meeting will be of sufficient interest to justify its existence, but we understand that a movement is afoot that may well at last bring motor racing in this country into its own as a sport of national and social importance.

BRITAIN'S USUAL SLOWNESS.

THE LONDON COUNTRY CLUB.

In the United States the pastime of motoring is very closely allied to the many charms of the country club. A similar movement is now developing in this country, and we describe below the many pleasing relaxations available at the London Country Club at Hendon, which is only half an hour's run from the West End.

THE country club ideal owes the major portion of its more recent development to American activities. Over in the States the idea has been developing rapidly in recent times, and the motorist and his country club interests are closely intertwined. It is a curious phase of British automobile history that the American trend of events has become a barometer to our own. If trade activity begins to waver over there, you may safely forecast a similar happening in this country. It is sure to follow in due course. We must confess that the Americans and American motorists have stolen a march on us in more quickly appreciating the many charms and the wholesome and health-giving advantages of the country club. But we shall follow in due course, and already there are many signs of fast-growing interest in this country.

For our own part, we think the country club idea commendable in every way, and of more than normal interest to the average motor owner. The motor vehicle, whether it be a lordly limousine, a cyclecar, or a motor cycle, at once affords a happy and efficient link between the home or office and the "home from home" as exemplified by

the country club. The ordinary motorist is no longer satisfied with riding pure and simple. He uses his car to link up with other sports interests—tennis, golf, racing, polo, dancing, and so on; and if there is a well-served meal of good quality and at a reasonable price also available, so much the better.

A GOOD START.

As we have already indicated, Britain has been slow in getting off the mark with the country club idea. We have only one club in this country

which adequately meets all these demands, and that is the London Country Club at Hendon. But what we lack in quantity, we make up for in quality, and the many excellent features of that club deserve to be more widely appreciated by motorists and all sport-loving people. He who cannot find his sports-pastimes requirements more than adequately catered for at the London Country Club would indeed be hard to satisfy. And the same remark is, of course, applicable to readers of the fair sex. But of this, more anon.

It is interesting, in the first place, briefly to trace the origin and conception of the London Country Club. One has to go back to 1910 to witness the establishment of the London Aerodrome, when, as a consequence of the world-famed aerial race meetings and displays, Hendon speedily became a recognised social and sporting rendezvous for men and women of rank and fashion. It was appropriate, therefore, that the valley of Hendon should be chosen as the site of the London Country Club, which was inaugurated in August, 1919, to afford facilities for all descriptions of out-door sports and social amenities. The



The club lounge is magnificently and tastefully appointed, as may be gathered from this corner view showing the staircase and fireplace.

STRIVING FOR AN IDEAL.

foundation stone of the building was laid by H.M. The King, in the presence of H.M. The Queen, in December, 1917. Projected in the years before the war, and designed by Mr. Herbert W. Matthews, F.S.Arch., the Club was erected immediately after the conclusion of the Armistice and thrown open to members for tennis and dancing towards the end of 1919. It will be seen, therefore, that it is still quite young, though a fast-growing child. We, of THE MOTOR-OWNER, at once recognised the charms of the country club idea, and have enjoyed membership since the earliest days. In our own personal experience we have only had one complaint, and as that is now happily removed, one need not hesitate to refer to it. Naturally a new club has to take time to grow, and some of the charges used to make rather a heavy demand on one's purse strings. But that is now a thing of the past, and the fast-growing membership has enabled the reduction of all charges which had previously been a little bit on the heavy side. Nowadays, however, the charges are distinctly reasonable, and you cannot get better value for your money in or around London, nor can you spend money on your sports or social entertainments in happier surroundings.

A FINE IDEAL.

The London Country Club has been developed upon the lines of the many popular American country clubs, and now embraces all the usual characteristics and up-to-date amenities of a high-class residential, social, and country sports club open under all phases to both men and women. The ideal is to possess a club wider in conception than anything previously attempted in this country, and excelling in social



There are more than 60 bedrooms for residential or visiting members, and running hot and cold water is laid on in every case.

and sporting comforts; a club-centre of general sporting instruction for polo, cricket, golf, tennis, rackets, croquet, fencing, boxing and so on even that most interesting little game of ping-pong being afforded accommodation. Also, indoors you have the billiards and card rooms, music, dancing in the ballroom or restaurant,



The club is also plentifully supplied with baths, as there is one to every three bedrooms, apart from the bathrooms en suite.

or amusements in the concert hall or on the stage, or else, perchance, the cinema. In short, you have an almost endless variety of sports and amusements.

THE SPORTS SIDE.

To deal now with the sports atmosphere of the club, the main outdoor attractions are polo, golf, and tennis. There are special pavilions for both golf and polo enthusiasts and full advantage is taken of both. During the season polo is played three times a week, and that keen and typically British sportsman, the Earl Fitzwilliam, is a leading figure in this super-sport, so dear to the heart of all lovers of horseflesh. The golf course is an 18-holes one, and both the fairways and greens have been greatly improved with the assiduous care continually bestowed upon them. Considering its close proximity to the heart of London—a mere six miles from the West End—the golf course at the London Country Club may truly be said to play very well indeed, and it is being constantly improved.

Turning to tennis, here again the enthusiast has all that the heart can desire, both the hard courts and the grass courts being of the highest quality and kept in superb condition. Many important tennis events take place at the London Country Club, and a challenge cup presented by THE MOTOR-OWNER for handicap competition amongst the members is one of the many interesting tennis events. The tennis courts accommodation is so generous that members can generally play as freely as they desire, except at week-ends and holidays when one books a court as a precautionary measure.

THE SOCIAL ASPECT.

We may now turn our attention to the

A FINE GOLF COURSE.



*First-class golf and
lennis instructors are
available for the tuition
of members, and as
plenty of interesting*



*competitions are ar-
ranged, the pleasing
attribute of keen-
ness is well to the
fore.*



In the centre picture a fair devotee of the Royal and Ancient game is coming to grips with her subject.

ILLUSTRATIONS OF SOME OF THE MANY ATTRACTI



Tennis.

The London Country Club at Hendon, the only enterprise of its kind in Britain which approaches the American ideal, is pre-eminently a motor-owner's club. It is sufficiently near London to be readily accessible in well under the hour, and yet is set amidst pleasant surroundings. The residential facilities provided are excellent; and the pet sports and pastimes—golf, tennis, polo and so forth—of the motorist may be indulged in readily and at reasonable cost.

Not the least of the London Country Club's attractions is the magnificent ballroom—one of the best dancing floors we know of.



ANY ATTRACTIONS OF THE LONDON COUNTRY CLUB.



Polo.



Golf.

A MIXED PROBLEM.



The left-hand player is a rarity at home, but that famous player von Braun makes up in quality for the lack of quantity.



If we were not well acquainted with the skill of Jose M. Alonso we should be tempted to think he was executing a new Spanish goose-step.

social aspect of the club, which is, of course, an item of considerable importance in the general state of affairs. To the individual, man or woman, who is accustomed to the everyday type of club life, it is difficult to visualise the social interest of a club wherein the different sexes are equally catered for, and equally at home. For example, the irascible type of retired colonel who is accustomed to his own armchair and his own table in clubland, will find it very difficult to appreciate the charms of the fair sex in his club precincts—however much he may appreciate them elsewhere! Similarly the fair devotee of bridge (and scandal?) at the ladies' club in Mayfair would consider it a desecration of the portals if mere man

were allowed to enter. The idea is unthinkable from both viewpoints when considered separately.

Yet when you come to tackle the

problem of a mixed club, and tackle it efficiently, as is the case in the one under review, you find that all these difficulties disappear and everything runs smoothly and in perfect harmony. In fact, the social aspect of the London Country Club is quite an item in its many charms. After the day's sport, a refreshing bath, and (if desired, though it is not necessary) a change into a dinner jacket, you can enjoy a good dinner and a dance, and, considering the quiet luxury and charm of the surroundings, the cost of such amusement is distinctly reasonable. If your inclination does not happen to run in that direction, you have a choice of other amusements, whether it be cards, billiards, ping-pong, quoits, or a quiet read in



Mixed Doubles at the London Country Club.

ATTRACTIONS FOR DANCERS.



Of the many sports dear to the heart of the Britisher, polo ranks as the keenest of all. This king of games is indulged in three times a week during the season at the London Country Club.

the really magnificent lounge. In short, if you cannot find adequate amusement, either indoors or outside, there must be something wrong with your digestion!

THE BALLROOM.

The ballroom is really magnificent. In these days, of course, everyone dances, young or old, and that aspect of the social amenities of "the world which amuses itself" has to be carefully considered. Those readers who are only accustomed to dancing at the most famed West End clubs will find the ballroom of the London Country Club vastly superior. The floor itself is excellent, and the size, airiness, decorative scheme, lighting, and general charm of the surroundings are immeasurably superior to the average high-class dancing club, be it in London's far-famed West End, or elsewhere. It is difficult to convey any



That typically fine sportsman the Earl Fitzwilliam frequently enjoys a chukker at the club. He is also a keen motorist.

adequate description of the decorative scheme in words. It is also very difficult to do it adequate justice in an illustration, but, considering these many technical difficulties, the artist has really acquitted himself very well in the picture he gives you.

With regard to the dancing itself, the events vary from a crowded carnival night to the comparative quiet of a *thé dansant*. Some remarkable successes have been attained with the big dances, and the sight is certainly a memorable one. And it is very amusing later on to watch your own capers at a ball as revealed by the cinema. Then there are the special club dances held at different times (at present every fortnight) and those who care for a pleasant dinner and dance must confess that the fare provided is excellent value for money. Personally, we frequently avail ourselves of this entrancing way of spending an

A HANDSOME CHALLENGE CUP.

evening, and can heartily commend it to others. Then on Saturdays and Sundays there are tea and dinner dances.

Another commendable feature of the organisation of the London Country Club is the attention given to the amusement of members' children. The place lends itself splendidly to parties for the little folk, whether for dancing competitions, cinema displays, games or picnics. Such events are held with just sufficient frequency not to spoil their charm for the childish mind.

RESIDENTIAL FACILITIES.

Finally we come to the question of the excellent residential facilities afforded by the club. The equipment and service throughout are quite the equal of a really good class hotel, but the comfort and social intercourse are far more akin to home life. You can reside as a family man with your own nurse and such other servants as you may desire, or you may enjoy the reputedly selfish existence of the bachelor's suite. There are more than 60 bedrooms—all of which are provided with radiators, electric lighting, hot and cold running water—post office telephone, and so on. Whilst avoiding the ostentatiousness of the Sir George Midas type, the equipment happily combines luxury and comfort. In fact that is a remark which is applicable to the club's organisation and equipment throughout. A bathroom fitted with shower bath and all other up-to-date appointments is provided for every three bedrooms, and in addition there are separate shower baths, and baths *en suite*. There is also a private dining-room for residential members who may on occasion prefer to take a meal there, rather than in the club restaurant. Whilst on this general subject, it may also be mentioned that there is ample dressing room accom-



The "Motor-Owner" Challenge Cup for tennis creates a precedent, as it is offered for handicap competition, so that all members have an equal chance.

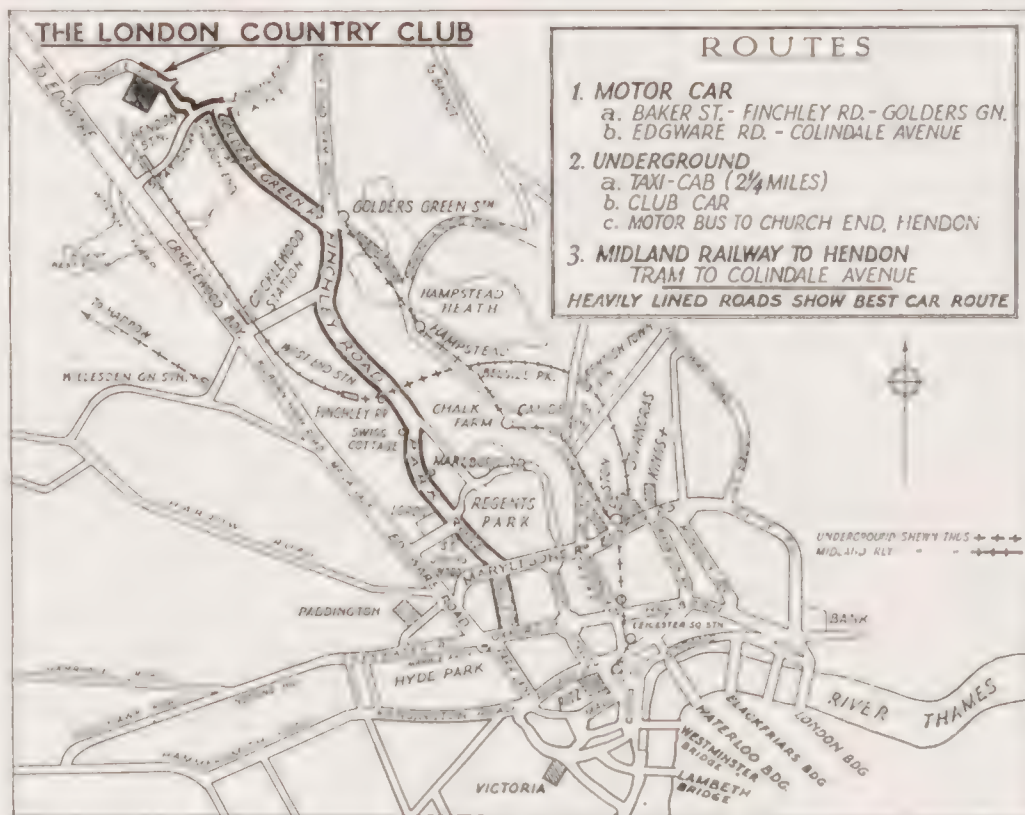
modation for non-residential members and their guests.'

ACCESSIBILITY.

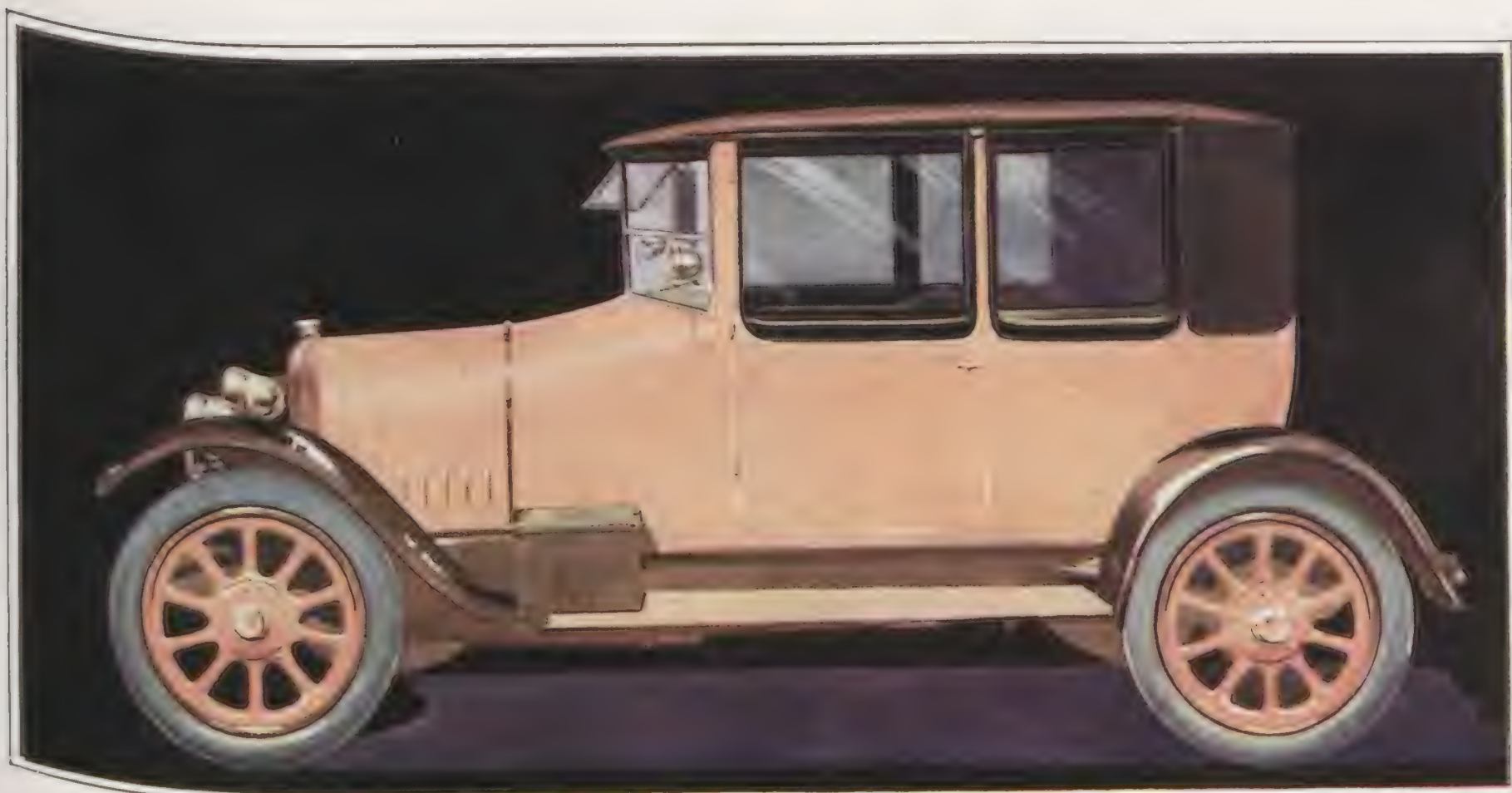
There remains but one point to emphasise, and that is the accessibility of the club for Londoners. If you have a car, you can leave your office in the West End at half-past five on a summer's evening, and be starting a game of tennis or a round of golf in about three-quarters of an hour. Of course a country club is primarily suited to the motorist, but in this case the non-motorist can also get there quite easily. The tube takes you to Golders Green station and club taxis "do the rest" either way for a modest fee per head. Alternatively, when you feel more luxuriously minded, one of the club motor cars will pick you up at your office or home, and, again, for a moderate charge. It should also be pointed out that a little later on, when the tube is extended, there will be a station possibly at the gates of the Club.

As we have already said, we think the country club idea will catch on in England as it has in the States, where motoring and country club amusements are very closely linked up. With regard to the London Country Club, we speak from inside knowledge, and several of our staff have been members from the early days, and it is a membership which we can confidently recommend to the consideration of our readers.

The ideal of the British country club is here seen in full swing, and the excellent pioneer work done is already bearing good fruit. And now just one final word in the privacy of your ear. At the time of writing there is no entrance fee, though the contemplation of one is under consideration, so that there is no time like the present—unless, perchance, it is already too late by the time you read these lines.



The London Country Club is readily accessible to the motorist—it is under half an hour's run from the West End—and for other folk club taxis or 'buses meet the trains at Golders Green tube station. When the tube is extended there will be a station at the door.



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20 to 25% REDUCTIONS!

MOTORISTS will remember that during the past three years, when unable to supply the quantity of tyres ordered, we have repeatedly pointed out that, unlike ordinary pneumatics, as the Rapson tyre was guaranteed against everything to cover a definite mileage, we were not prepared to increase our output and decrease prices until satisfied that, in so doing, the quality of our goods would not be affected. To-day Rapson tyres are in mass production. Of the hundreds of tyres already sent out from our new factory, including those for use on Army vehicles, not one has yet failed. In many instances our guaranteed mileage has been greatly exceeded, and we are now quite satisfied that not only are the new tyres far and away better than the best previously made, but that these are so uniformly good that we can safely reduce our prices of ordinary pneumatics and still issue our *unconditional* "Guarantee against Everything" with each and every tyre sold. Admiral Sir Lionel Halsey, Comptroller to H.R.H. the Prince of Wales, St. James's Palace: "His Royal Highness's car has covered 10,000 miles since the tyres were fitted, and they have given complete satisfaction." Mr. J. T. Davies, Private Secretary to the Prime Minister, 10, Downing Street: "I have pleasure in informing you that these tyres have completed 10,700 miles without trouble of any description. The Prime Minister desires me to congratulate you heartily." Air Commodore Brooke-Popham, C.B., C.M.G., D.S.O., Director of Research, Air Ministry: "On armoured cars in the desert ordinary tyres burst or punctured every few miles, whereas the Rapson tyres gave no trouble of any description." Mr. H. Nutt, Managing Director, Messrs. Barker & Co., Ltd. (the famous Rolls-Royce coach-builders): "My demonstration car fitted with your tyres seems to float over the holes and pockets in the road. The tyres hold the road splendidly, and the car seems to take the hills better than ever."

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"DAILY MAIL" (Overseas Edition)—Motoring Editor.

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"COUNTRY LIFE"—(W. H. J.).

"Having inspected carefully a Rapson Tyre and the material with which it is made, we have no hesitation in pronouncing it as something very much better than any other tyre we have hitherto seen."

"THE AUTOCAR"—("Owen John").

"The presence of Rapson Tyres on my car often makes me wish if that genius, Lionel Rapson, would have troubled to invent the Rapson Jack if he had realised their freedom from trouble."

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"The Rapson Tyre is, in our opinion, the most important step that has yet been made towards the material perfection of the automobile millennium."



A Rolls-Royce car fitted with Rapson Tyres, Rapson Jacks and Rapson anti-dazzle dipping headlights.

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THE PROBLEM: WHERE TO GO?

A V A R I E D R O A D.

An outline of a run along the Sussex coast, affording a sample of every kind of English highway.

ONE of the penalties one pays for considerable use of a car is that all the roads and scenes within a day's ride of one's home soon become commonplace and devoid of vital interest. There is usually some particular main road to the coast or to an important centre handy, and if that road happens to be just a little uncommonly picturesque—such as, for instance, the Portsmouth Road—it is long odds that on every occasion when one is in some hesitation exactly where to go it is that road that bears the brunt of one's travelling. Motoring for motoring's sake is good enough for some of us, regardless, within fairly wide limits, of the surroundings, provided only that the road be reasonably good as to surface, and that it does not lead through the Potteries, the Black Country, or the East End of London.

But that is rather the enthusiastic driver's point of view; it is seldom sufficient for the passengers that the car is running well and is a delight to handle, nor is it enough for the majority of modern drivers. And so the runs of interest in the neighbourhood quickly get used up, and the choice of where to go becomes one between travelling again an off-travelled road and going farther afield than is convenient.

The Londoner almost automatically makes for the coast, and so far as may be varies his routes, but for the most part if he journeys to Brighton he returns to London from Brighton, although by a different road; if he makes for

Eastbourne, he returns from Eastbourne. Seldom does he run along the coast to the next town and return from there, and yet there are some magnificent roads from the point of view of both surface and scenery on the shores of Kent and Sussex. We have long promised ourselves a coastal week-end, starting, say, at Margate and running as far round through Dover, Brighton and Portsmouth as time permitted, but the intention has never yet been fully carried out. A part of it, however, was performed more or less accidentally on a recent Sunday.

We simply did not know where to go, and, being "fed up" with the Ripley road, cut across to Dorking and thence right through to Westerham and Sevenoaks. "Let's go to the top of Beachy Head," someone suggested, and, as it was then not at all necessary to go down the usual main road through East Grinstead, we agreed. And from the time we left Tonbridge the road

was so good, so varied, and so really "worth while" that we are now recommending our route, or such portion of it as may prove agreeable, to all to whom it is not already familiar. As a matter of fact, we made a particularly big day of it, the total distance covered being over two hundred miles, but nearly every mile was novel and enjoyable, and, anyway, the beauty of such a trip is that it can be cut short at any time, since at no point is one really travelling materially farther away from London once the coast is reached.

Incidentally, we are not claiming a wonderful discovery, since each section of road that we traversed is well enough known. It is only that the combination of the different types of road and country made such a harmonious and comprehensive whole that impels us to outline the run.

First, then, a new note is struck immediately upon leaving the Hastings road to veer to the left while we carry straight on for Tunbridge Wells. One mounts seemingly to the roof of the world, and, just outside the Wells, as quickly descends past the weird out-cropping of the rock upon which the town is built. For many a mile the road continues in steep ascents and descents and tricky corners—just the kind of highway, one would imagine, to give the driver of a light car something to do to make a creditable top-gear performance. The way is not really difficult, however, although the frequent changes of gradient and direction make necessary constant



The serpentine course of the River Cuckmere, seen from the road between Friston and Seaford.

OVER BEACHY HEAD.

watchfulness. The road continues of much the same character through Mayfield, Cross-in-Hand, Horsebridge and Hailsham to Polegate, whence a sharp turn to the left quickly brings one to the tramlines and Eastbourne.

Straight along the magnificent front lies our road; at the end it mounts by a succession of beautifully engineered curves and a couple of *pukka* "hair-pins" to the several-hundred-foot top of Beachy Head. The long, winding descent to sea level brings one to an inn yard and a turn to the right for Seaford, nine miles from Eastbourne. Only for a few minutes is one out of sight of the sea on this moorland road, which might well be in the heart of Yorkshire, and after Seaford one is constantly on the very shore. The moorland road, after Newhaven, becomes that most modern of highways, a real motor road. It is as nearly as possible straight, mile after mile, of perfect surface and ample width, and although some of the hills are quite severe, the road is so safe that it is possible to neutralise their severity by "rushing" them.

As a matter of fact, we believe that there has been some local trouble on account of the cost of this particular stretch of road, which is of course mainly used by, and of service to, people who are not resident in the district. It is not our province to inquire into the rights and wrongs of the case, but at least the new road serves as a model for the rest of the country. It is as nearly perfect, according to modern requirements, as it is possible to imagine, and affords a striking contrast to the impractical schemes which have been put into effect in other parts.

Eventually we enter Brighton through Rottingdean, and passing along the front and its continuation

to Shoreham, reach the toll bridges. The scene has then changed again. The surroundings of the shore, instead of the brilliant chalk cliffs that we have been admiring for many miles, become more suggestive of industry, with the mystery tower, rotting and rusting at its anchorage, as the culminating point. The last stage into Worthing is more cheerful—more frankly beautiful without the slightest excuse of practicalness—and the characteristic odour of the shore becomes more

insistent. Appreciation of that particular perfume may be a matter of taste, but we have never failed to notice its pungency at Worthing.

Here, after running to the extreme end of the front, we turn inland beside the tragic half-finished hotel that has for years served as a monument to someone's futile enterprise; at the top of the road we turn right again, and immediately beyond West Worthing Station cross the lines by a level crossing. A signpost about a mile

farther on, beyond Tarring, directs us to Angmering and Littlehampton, and thereafter we enter upon a 10-miles stretch of lanes, pretty in their way, and a complete change, but here and there of indifferent surface. We can, if we choose, enter Littlehampton by way of the sea road, but for the most part we run inland all the way to Bognor, where we turn even farther to the northward for Chichester. Here we have a choice of homeward roads through Midhurst or through Pet-

worth, but the former is by far the prettier, if perhaps the more difficult on account of gradients. The extra trouble is well justified, especially if, just before reaching Haslemere, we turn to the left for Shottermill and Hindhead and run into Godalming by way of the Devil's Punch Bowl. This is considerably spoiled by last year's heath fires, but nothing can deprive the wonderful views to be obtained in this part of the world of their glorious unrestrictedness.

There is little need to speak of the rest of the road to London, since it is the beautiful, though familiar, Portsmouth Road through Guildford, Ripley, Cobham and Esher. You probably, if you have faithfully followed in our wheel tracks, are sufficiently tired to appreciate the speed of this highway—are glad to make



Leaving Tunbridge Wells. The photograph shows the quaintly shaped outcropping of the red rock upon which the town is built.



A stretch of the wonderful modern coast road between Newhaven and Brighton.

AN INFINITELY VARIABLE ITINERARY.

what speed you can on the homeward stretch.

Even here, however, there are many points of interest of which the ordinary, everyday user of the Portsmouth Road is ignorant. On the road itself there are quaint milestones with quainter spelling, disused "travellers' rests," ancient coaching inns with twisted oak beams and glorious panelling which Americans would give a small fortune, maybe, to transport to the new world. All these things are to be found without trouble ;

but the motorist does not normally keep his eyes open. The only inn he knows is the one to which he has been recommended for a good lunch ; perhaps an equally good meal might be obtained, plus historic surroundings and associations, a few hundred yards farther down the road. However, it is the speed of the Portsmouth road that is most attractive after a long day's run, and we will reserve a more intimate detailing of its interesting points for another occasion, merely remarking in passing that almost any by-road off the main highway will well repay the adventurous motorist for investigation. The wanderings of the River Wey are worth following, as nearly as may be ; a road marked "impassable for motors" near Wisley is impassable only in the flood season—at any other time the turning will open up new and fascinating scenes to the adventurously inclined. By leaving the road at Ripley and wandering away to the left one enters a district that rivals Scotland both in character of scenery and as a test for a car, and—not to go further into details which have already been published in THE MOTOR-OWNER—is a welcome change from the week-end processional on the main road itself.

The complete itinerary of the

coastal run we have outlined is nearly 190 miles, allowing for a journey direct through Bromley, Farnborough and Sevenoaks to Tonbridge, as follows :—

	Intermediate Mileage.	Total Mileage.
London to Tonbridge ..	—	31½
Tunbridge Wells ..	5½	36½
Mayfield ..	8½	45½
Cross-in-Hand ..	5	50½
Horsebridge ..	7½	58
Hailsham ..	1½	59½
Eastbourne ..	8½	67½
Seaford ..	9	76½
Newhaven ..	4½	81½
Brighton ..	9½	90½

	Intermediate Mileage.	Total Mileage.
Shoreham ..	6	96½
Worthing ..	4½	101
Littlehampton ..	9½	110½
Bognor ..	7½	117½
Chichester ..	6½	124½
Midhurst ..	11½	136
Fernhurst ..	5½	141½
Hindhead ..	3	144½
Godalming ..	8	152½
Guildford ..	4½	156½
London ..	30½	187½

From this itinerary it will be seen that it is by no means necessary to follow the complete circuit. One may turn back to London from Brighton,

thus reducing the total distance approximately to 140 miles. One may even return from Seaford through Alfriston, noting the ancient Star Inn, or through Lewes direct. Or one may run on to Worthing, returning via Horsham and Guildford or Dorking ; one may come back through Arundel from either Worthing or Littlehampton, or from Bognor over Duncton Hill, through Petworth, North Chapel, Milford and Godalming. Probably the prettiest return

journey from Bognor is by the route indicated in our itinerary, which includes Bury instead of Duncton Hill, and as this is a down gradient in this direction there is no need to fear it, so that one's brakes be good. On this route, of course, it is possible to run directly into Godalming via Milford, but the detour to Hindhead is well worth while. This route, anyway, has the advantage that it is almost impossible to miss the way to Chichester, whereas the road to Petworth is not so easy to follow. There are almost infinite variations of the run ; in fact thoroughly to exhaust the triangle of country included in our outline might not be done in a lifetime. The motorist, however, does not desire to exhaust a district to that extent, even were it possible.



Friston Pond and Mill, which is passed after descending the western slopes of Beachy Head, on the road to Seaford.



Entering upon the finely surfaced stretch of moorland road, with the cliffs of Beachy Head in the background

A TEST OF THE LORRAINE-DIETRICH OF THE

An excellent medium-powered six-cylinder one of the

THE Lorraine-Diétrich is a car with a history reaching back into the early days of automobilism, and as we knew the car of old to be sound and reliable, we were anxious to test the latest production, embodying the most up-to-date developments of design, of the firm.

Starting late and being particularly desirous of lunching at Tring, we soon found that the new moderate powered six-cylinder model was capable of good average speed, the 31 miles being easily covered in less than an hour and without apparent effort. This at once made it clear that the car was a little out of the ordinary, and from pure curiosity we took advantage of the first long, lonely stretch of road to see what she could really do. Suffice it to say that the 60 m.p.h. figure was reached, and we were satisfied. We then turned right off the beaten track into the district lying between Tring, Chesham, Wycombe, Prince's Risborough and Wendover. The slopes of the Chiltern Hills, as a matter of fact, can be highly recommended to anyone who wants to be sure that his car is in good fettle before starting on a tour.

We had already observed the Lorraine's excellent acceleration, but this became increasingly evident in the more difficult district, in spite of the fact that carburation was not as good as it might have been. A new Zenith "triple diffuser" carburetter had been fitted, and was not finally tuned; however, an early change into second gear on the many "freak" hills to be found in the neighbourhood was sufficient to secure a praiseworthy climb, although the valve tappet clearance badly needed taking up.

The radiator, distinguished by the familiar double Cross of Lorraine, is of ample dimensions, and not once did it get more than warm, although we gave the engine a good grueling. Cooling, as is often the case with Continental cars designed for use in mountainous country, seemed to be somewhat overdone. The steering was quite unusually light, and after rounding a corner, by



The Lorraine-Diétrich is a car with a history reaching back into the early days of automobilism, and as we knew the car of old to be sound and reliable, we were anxious to test the latest production, embodying the most up-to-date developments of design, of the firm.

CH. OF THE SLOPES OF THE CHILTERN HILLS.

and six-cylinder engine of the pioneer firms of the Continent.



loosing the grip on the wheel the latter slips through the fingers and the car automatically straightens up. The car held the road well at all speeds; there was never a sign of a skid no matter what the surface was like. This we believe to have been partly due to the rear springs, which are of the under-slung cantilever type, and are splayed at such an angle that lines drawn through the pair would meet at the starting handle. The Lorraine-Diétrich is easy to drive, and for all ordinary roads is a top gear car, capable of averaging 30 miles an hour without difficulty, and with a petrol consumption figure in the neighbourhood of 20 miles per gallon.

The action of the clutch is particularly light and sweet, and the central gear change, giving three speeds and reverse, is very easily manipulated. The brakes are excellent, although very French in the manner of their operation. Visitors to Paris will recognise the sound.

The six-cylinder engine has overhead valves operated by long push rods. The tappets are easy to adjust and the valves themselves fairly accessible. It struck us, however, as a great pity that better provision had not been made for decarbonisation, which is no small task when a block of six cylinders has to be removed. A detachable head is almost a necessity on an engine of this type, although it is quite possible that so cool-running an engine requires a minimum attention in this respect.

The French bodywork of the car is of good appearance and the seats are comfortable, the little arm-rests for the rear passengers being most useful fittings. The equipment is of the all-weather variety, and is really successful; the side curtains open with the doors and are well fitted, so that they are quite free from annoying rattles.

The equipment on the instrument board includes that most necessary fitting, a central light.

Altogether, this 15 h.p. six-cylinder Lorraine-Diétrich is a good all-round car, capable of giving sound service.

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TEAM WORK IN CAR DESIGN.

A Plea for the Economisation of Effort in Experimental Work.

By Major A. Livingstone Oke.

IN the design of a relatively complicated piece of machinery there is no such thing as finality, and yet in the modern motor-car it is difficult to avoid the conclusion that, temporarily at least, there seems to have been reached a certain *idée fixe* about most of the important details.

Here and there, a few more adventurous spirits are breaking new ground, but the great bulk of the motor-car manufacturers seem to be holding a "watching brief," and meantime cautiously building from their 1914 drawings, slightly modified.

It is inevitable that one should feel there is a great dispersion in intellectual effort where there are so many individual firms all producing cars which are very nearly exactly alike in their main principles. If quite good cars by different makers need to differ so slightly in only minor details, it would seem to be far better to get out one good representative design, drawn up by a group of the best designers, and let each firm show its individuality in the quality and workmanship. The cost of their present diffused methods would better be given for such a collective experimenting with the principles of design rather than the minor details.

It is obvious that this "wait and see" policy calls for a large outlay on the experimentation necessary even in the smaller parts, but a good deal of this could be avoided by collective effort, or, at least, the money be spent to better advantage.

During the war all sorts of people worked together on committees for the better attaining of a definite and most advantageous design in tanks, aeroplanes, artillery, and a score of things necessary to "win the war." Now, when the job of "winning the peace" is right in front of the nation, all its best brain-workers and most experienced engineers are scattered over the country, trying to do individually work which calls for an equally determined collective effort as many

of the problems proposed and successfully solved during the war years by committees. The present size and growing importance of the motor-car industry is so obvious that the need for this country to get its very best brains on to the solution of a number of the most pressing problems needs no emphasising. Here collective action could eliminate a tremendous waste of intellectual effort and do far more with the money than the best directed individual endeavours on the part of manufacturers to obtain perfection, as far as humanly possible, in their own productions. Perfection is an ideal to be diligently sought; but, at the best, compromise will be inevitable, and an old proverb tells us that "two heads are better than one." How much more true this will be if the numbers are increased and "team work" take the place of the more spectacular "individual play"? If two good representative cars of distinct makes are taken and examined in detail, it will be found that the differences are largely a matter of the shape and size of the smaller parts and none whatever of principle. And yet in each case the same amount of work had to be duplicated in two different drawing offices to produce what, in the end, is just as good in the one case as the other. So here you have two sets of men doing work which could be well left to one set only, while the other was engaged on research and designs that involved the introduction or adaptation of some new principle; in each case it is the best use of the country's brain-workers that matters, and they are not so plentiful that they should be wasted on unnecessary duplication, quite apart from the financial aspect of the question. It is true that there is an increasing tendency for the component parts of motor-cars to be made by firms who have specialised, but this still leaves the larger question of the modification of the principles underlying these designs where it was. It is on these larger

questions, involving radical variation from present methods, that a hundred problems are still to be thrashed out. These points need the most elaborate and careful experimentation for their final solution, and the expense is so great that few individual firms can afford to risk the financial loss if the results should happen to be negative.

The world's "best car" will never be built, but there is an urgent need for several types of cars which best meet certain definite requirements in each class, and a committee, with the necessary financial backing to prove or disprove their designs, could more quickly arrive at the most satisfactory all-round compromise than by the existing haphazard methods of "trial and error" by individuals. Standardisation is one thing, and a standard design quite another, although the two are intimately related. A standard design would change and improve in detail year by year, but its improvement would always be carried out with due regard to all the factors of the standardisation of its component parts that had already been put in hand; alterations affecting standard details would only be adopted after due preliminary warning to all concerned.

In scores of drawing offices and works all over the country the designing and testing of new models is going on, and the result will be a very fair average of general efficiency in nearly every case; but the individual note will be on a very minor key, and the net advance in design will be but little beyond the stage reached by any one of the firms individually.

It is to economise on this effort and utilise it to better purpose that such collective action on the part of the car manufacturers of this country would be immensely beneficial to the industry itself, to the public by supplying a cheaper and more suitable article, and to the country's export trade by its ability to compete on more favourable terms with the "mass production" of our foreign rivals.

(See also page 30.)

HISTORY DOES NOT RELATE THE FARMER'S REPLY!

THE WRONG SPIRIT.

What an advantage it is to be blessed with a sense of humour!



RULING HABIT.

The Farmer: Ain't that a fine cow?

The City Man: How many miles will she do on a gallon of milk?



What have I done
to deserve this?

An appliance that should be part of the standard equipment of every car.

An accessory has recently been brought to our notice which does just this thing, and which we have no hesitation in pronouncing the finest practical motorist's appliance that we have seen for years. The article in question is a grease gun—the "Ex-a-gun"—with which an owner can go completely over his car in a very few minutes; with which there is no

An essential part of the equipment is a special spring-and-ball lubricator (*B*) which replaces existing greasers. The nozzle of the gun (*C & D*) is hooked over the lubricator and the clamping screw given a turn. The pump plunger can then be screwed down to eject the necessary amount of grease; the nozzle is unhooked—and the job is done.

This quick attainment is excellent, but we admire equally the method by which the gun is filled before use. Just as one extracts the piston from a bicycle pump, so is this one removed, but instead of merely the piston, a long steel cylinder (A) in which the plunger works, comes out also. The piston is then withdrawn to its fullest extent, the cylinder plunged downwards into

As we have seen, the greasing of the shackles and so on has been a badly solved problem since motor cars began. It is now not only a problem at the spring supplies, but the existing greasers on one's car are easily carried off. We do not over-enthruse, but in this case we consider it amply justified; and we will add that the fix a gun can be obtained from A. L. S. Presumably so that owners may verify these statements.



THE NEW DUNLOP TYRES



IMPROVED
MAGNUM
CANVAS

MAGNUM
type.
CORD

STRAIGHT
SIDE
CORD

Manufactured in the most modern factory in the world.

Perfect in design, quality of materials, and finish.

Adopted as standard equipment by all British motor manufacturers of repute.

Give full value for money and therefore cost less per mile.

Are British; by buying British goods you help to decrease unemployment, and thereby reduce taxation.

Dunlop service can assist you to get the best results from your tyres; in case of difficulty communicate with Service Department, Dunlop Rubber Co., Ltd., Fort Dunlop, Birmingham.

DUNLOP MOTOR TYRES
obtainable from all motor dealers.

Have you tried the DUNLOP
lattice-marked Golf Ball?



TRADE

MARK

The Motor-Owner, May, 1922

and the Chart of Recommendations

The recommended grade for each model has been selected by the technical staff of the Vacuum Oil Co., Limited, after detailed examination of the mechanical conditions, to ensure

- The lubrication requirements of each chassis are scientifically met by the correct body and character of the high quality oils recommended.

Gargoyle Mobiloils are sold by dealers everywhere



A grade for each type of motor

A grade for each type of motor

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The Motor-Owner, May, 1922

Chart of Recommendations—Part I.

MOTOR CARS.

The above is the first instalment of the Chart of Re
for Motor Cars, 1922-1921 Models.

CURIOSITIES ON E MISSES.



THE ROCK OF AGES, SOMERSET.



AN OLD QUINTAIN POST, KENT.

THE Rock of Ages, a natural cleft in the rocks, attracts many West Country visitors, for Burrington Combe is comparatively close to Bath and Bristol, but it is not well known to tourists from other parts of Britain. Although the world-famous hymn is known to millions in all lands, comparatively few people know that its composition was inspired by the shelter this rock provided for the Rev. Augustus Toplady in a sudden thunderstorm. Preachers of various denominations inaugurated a pilgrimage, which is to be an annual affair, last summer to the Rock, accompanied by various choirs. Although the pilgrimage was in principle similar to that headed by Chaucer to Canterbury in the fourteenth century, the mode of travelling was different, since petrol was the moving spirit.

Burrington Combe, near which the Rock is situated, is on the north of the Mendips, on which side the land is much broken up into ravines and grass-covered hollows, Burrington, close to the pretty village of that name, being one of the most picturesque.

There are two large caves worth visiting in the Combe as well as the Rock itself.

OFFHAM, in Kent, is not a very easy place for a stranger to find, but it is worth getting to, if only for a glimpse of its old quintain post.

The village is on the right of the London-Maidstone road, just south of Wrotham, and on the green stands this interesting relic—the sole survivor of many which, in the days of “Merrie England,” afforded much sport on “holidays” for the dwellers of the country side. It consists of an upright post, on the top of which is pivoted a shaped blade. The daring performer tilted at one end and hoped to get clear before the opposite, weighted, end came round, usually with sufficient force to unseat him. During the hop-picking season, when many Londoners invade the district in search of health and wealth, a local worthy takes charge of the movable part of the post. The temptation to throw stones is irresistible to most of the visitors, for it makes a splendid target and there are no windows near to get broken in the performance—not that that would materially deter the playful ones.



CURIOSITIES

THE HINDRANCE OF A CAR.

PARKING SPACES IN LONDON.

A Simple Solution to a Problem of Ever-Growing Seriousness.

COINCIDENT with the growth in the seriousness of London's traffic problem another difficulty becomes increasingly apparent with the steadily advancing volume of automobile traffic. This is the difficulty of temporarily disposing of the car—and especially the owner-driver car—when its immediate mission as a means of transport has been fulfilled.

The motorist is unwilling to use the train; naturally, he drives into town from his home, a little way out in the country. Immediately upon arrival he is met with the problem that the office, restaurant or whatever it be that he wishes to visit, is situated in a busy street; that there is no conveniently placed garage, or that the only garage nearby is already full. The motor-car, in fact, becomes a hindrance; its wonderful mobility is wasted. To tell the honest truth, the motorist wishing to visit London for a round of business visits, as conditions are at present, would do better to come by train and use a taxi for his various calls.

This is an absurd state of affairs, especially in view of the fact that it can be obviated without the exercise of any startling amount of ingenuity. There are innumerable examples upon which a workable scheme for London can be based—twenty-two parking spaces have been allotted to Birmingham motorists alone, while in the large towns of America, where, of course, the number of cars in relation to the population is much higher, great squares are set apart for the purpose.

One of the principal advantages of the possession of a car is the instant readiness of the vehicle to perform an unexpected service—in other words, the independence of all other means of transport which the car confers upon its owner. One does not want, upon finding a surprise journey necessary, to have to walk or taxi a mile to the garage and then, maybe, have to wait while the car is brought to the ground floor by lift or manœuvred out of an awkward situation.

All this inconvenience would be done

away with if recognised parking spaces were allocated to motorists here and there about the Metropolis; and, if the overcrowding problem is still apparent so far as housing accommodation is concerned, there is at least no such difficulty in regard to spare unused space suitable for the purpose of parking cars. The example of St. James's Square, for instance, might be extended. Here, members of the Royal Automobile Club who wish to spend an hour or so in the Club, one minute away in Pall Mall, can leave their cars, knowing that they are perfectly safe and ready to drive away at a moment's notice.

There is no need to labour the point—there are squares all along the line of most of London's main thoroughfares that would make convenient parking spaces for shopping motorists without causing the slightest inconvenience to other sections of the public. Then there is a great triangle of practically virgin roadway just inside Hyde Park, with its base against



St. James's Square, where the cars of Royal Automobile Club members are parked in safety and at no inconvenience to the public.

Cars in St. James's Park during the exhibition of Princess Mary's wedding presents—a valuable precedent that might be followed up.

A PRACTICAL SOLUTION.

the Marble Arch entrance, where quite a large number of cars might stand.

Possibly parking in echelon round the inner kerb of the various squares would meet only a part of the varied requirements of London motorists, and so we turn to the example of the Engineers' Club and Automobile Association headquarters. Whitcomb Street is a little-frequented off-shoot of Coventry Street, and at any hour of the day the cars of those visiting one or other of the two establishments mentioned may be seen parked up against the kerb quite safely and quite harmlessly. There must be many such backwaters, either actual culs-de-sac or else might be utilised, and particularly down in the City where the difficulty is even more acute than in the West End.

One portion of the problem we have avoided mentioning, and that is the prevention of theft or interference with the cars left unattended—and it is an essential part of the scheme that it should be possible to leave the vehicles without individual guardians. Presumably each authorised parking space should have its attendant constable; but we are not quite clear in our own minds as to

whether this is a service which one can reasonably demand of the official force. It should be capable of arrangement, however, between the police authorities and the two motoring organisations—and so far as automobile owners are concerned it would scarcely matter whether the guardians appointed wore uniforms of dark blue, light blue or khaki.

Further than this, it would be necessary to provide some security that a car could be driven away by no one but its owner or a person authorised by him, and as this seems to involve the use of a counterfoil book of tickets, it is only reasonable to suppose that some small charge would have to be made.

A fee of threepence, one would say off-hand, should cover this matter, but probably some time-limit would have to be fixed, so that the motorist who left his car in the parking space from ten in the morning until five at night should pay more than another who merely put his car there during the luncheon hour. All these details, however, are comparatively trivial and easily worked out once the broad basis of the idea is accepted, and this we do most earnestly recommend to the attention of the authorities concerned.

So far as the theatre-going motorist is concerned the present position is just as difficult, and we are rather surprised that none of the theatres themselves have awakened to the necessities of the

case. For the theatre-goer living some way out, the concluding stages of any performance are always more or less spoiled either by the necessity for leaving before the show is over, or by anxiety as to whether, by seeing it out, he is risking missing his last train. If he is a car owner, the knowledge that he cannot use the vehicle without considerable inconvenience—sufficient to make it not worth while to motor into town on this or any occasion—makes the matter more irritating still.



There is ample space in the majority of London squares for cars to be parked in echelon around the central space, as in the case of the cars of R.A.C. members in St. James's Square



The parking of cars along the kerb in Hyde Park might be possible, but there is a great triangle of unused roadway inside the Marble Arch entrance that could be used. The arrows indicate lines of traffic.

MY LOG BOOK.

By Hermes.

*A new branch of the R.A.C., and a warning to motorists issued by the A.A.
—A new use for the Bowser system—An important addition to the light car
market—Useful handbooks—And a budget of other interesting information.*

THE R.A.C. has now added a further valuable link in the chain of its local organisations by opening a branch office in Nottingham, at Burton Buildings, 7, Parliament Street. Local motorists will have the advantage of being able to obtain information and advice on the spot, while the office will be of great service to tourists, particularly those visiting the Dukeries, to which Nottingham may be said to be the key.

In future A.A. patrols—except those engaged at filling stations or on special duty—will leave their beats punctually at 1 o'clock for their mid-day meal, and return to the road at 2 o'clock. A.A. members will therefore not see patrols on the road during this period.

The Automobile Association warns motorists, also drivers of industrial motor vehicles, proceeding through Camberley, Surrey, that the authorities are strictly enforcing the proper illumination of rear index marks.

In No. 1 of the *Messenger*, the house organ issued by Crossley Motors, there are a number of interesting articles, partly because they reveal to Crossley owners the widely separated regions to which these cars get, and partly for the journal's overseas colour. The journal is, as a matter of fact, old-established, but was suspended during the war, and the present number is the first of a new and very informative series. Its contributors are experienced men, and provide between them practical information, a certain amount of humour, and side-lights on points with which the average owner is not acquainted.

Specially designed for the touring season are a number of automobile trunks and tea and luncheon cases, which can be seen at Messrs. J. B. Brooks' new premises at No. 108, Gt. Portland Street. These premises have been opened in response to a desire for a *locale* in that neighbourhood, and contain a large and varied display of those articles which mean so much to the motorist's comfort.

A great need to the owner of the upholstered car is supplied by Messrs. Eastman's, of Acton Vale, London, W.3, for over one hundred years the London dyers and cleaners. Every owner knows how soiled and grubby the insides of both open and closed cars become, and how distressing it is when light-coloured garments come into contact with dirty cushions. A clean car is assured by Eastman's wonderful dry process in two or three days. Owners whose cars have become the worse for wear in this way should lose no time in getting into touch with Messrs. Eastman's.

I am informed that the Bowser method of handling petrol supplies is being installed at Waddon Aerodrome, Croydon, which is the starting point of the Trans-Continental Air Service. A 10,000 gallon capacity tank for the storage of petrol has been placed underground, and is connected to an electrically driven remote control pump. There are four filling points which enable four aeroplanes to fill simultaneously. The rate of delivery is approximately 40 gallons per minute, all petrol passing through the Bowser centrifugal filter, which separates all dirt, water and other foreign matter from the petrol, thus reducing the risk of engine trouble to a minimum.

It is many years since I went over the very interesting F.N. motor works in Belgium, whose hands put up so spirited a resistance against the German onrush. The ill-effects of the war are now, however, overcome, and the firm is working with its customary vigour. In addition to the F.N. cars and motor cycles, the company manufactures military rifles, hammerless and automatic Browning sporting guns, carbines and pistols, as well as bicycles and sparklets.

An important addition to the light car market is made by the new 10-15 h.p. four cylinder Waverley. Sturdiness and excellent workmanship, together with the fact that the body is a commodious four-seater, with all-weather curtains and adjustable front

seats, comprise only a few of the points of this car's appeal to the mass of the motoring public, while its nine-foot wheel-base possesses another obvious recommendation.

Citroën cars having attained a very large output, their makers have issued a descriptive handbook of the various types. The information, which applies to the 7.5 the 10 and the 11.4 models alike, is laudably concise and appealingly presented. Copies may be obtained from Messrs. Gaston, Larden Road, Acton Vale, W.3, who have, as I mentioned recently, an extensive service and spare parts depot in existence at 99, Boston Road, Hanwell, W.7.

After many experiments the large-sized Claudel-Hobson carburettor has been decided upon for the 1,000 h.p. Napier "Cub" aero engine, which is to be fitted by the R.A.F. to a super bomber.

Considerable interest seems to have been re-awakened by a recent private trial of a device for preventing mud splashing from passing motor vehicles. A number of such attachments were subjected to a series of trials by the Camberwell Borough Council a year ago, among which one known as the Gentleman anti-splashed guard acquitted itself particularly well. The particular device, which is patented in all countries, is now being manufactured and marketed by the Hutchinson Tyre Company.

It is the intention of General Motors Ltd., who are establishing new works at Hendon, to assemble the Buick, Chevrolet, Oldsmobile, and Oakland cars on these premises. These well-known cars are manufactured from Canadian material by Canadian labour.

The work of assembling is to be carried out under skilled supervision, and supplies of spare parts will in future be available through the firm's various agents. To make this department of the business thoroughly effective, General Motors are carrying stocks of spares at Hendon valued at over £100,000.

THE SUPREME SUNBEAM

24/60 h.p. six cyl.

"the most improved car of 1922"

THE LATEST SUNBEAM
RACING SUCCESSES
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FOUR FIRSTS
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Lightning Short Handicap
12-cyl. Sunbeam first
(Driven by I. Chissign)

THIS car is the lineal descendant of the famous 6-cyl. SUNBEAM which, running in practically standard form, in 1913, annexed all the

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Southern Service and Repair Works:
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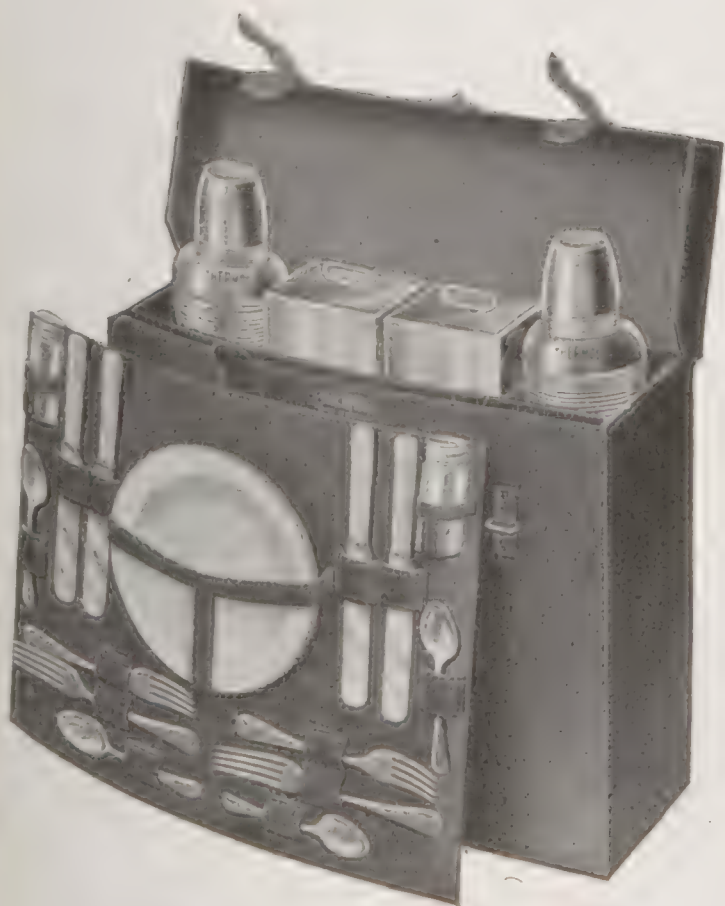
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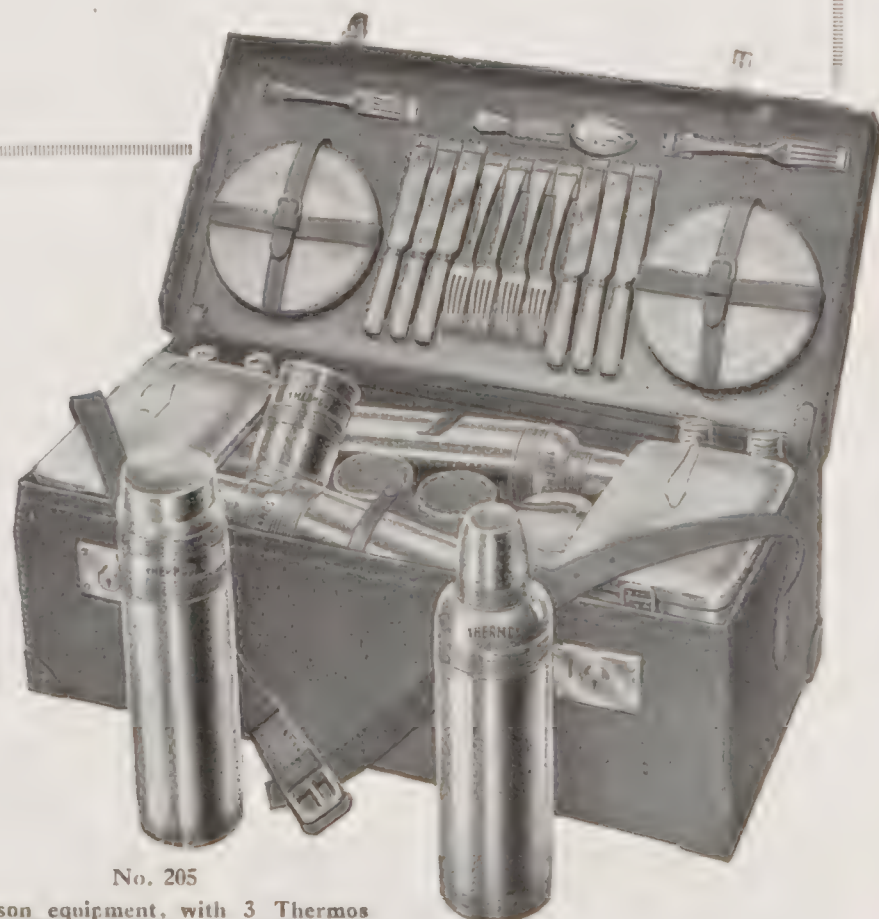
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A CRITICISM OF POLICY.

A TRIAL OF THE DURANT CAR.

A new low-priced American vehicle which appears to offer good value.

TO our British ideas—were we not already acquainted with American products—it is little short of marvellous that a car of 20-odd horse-power, fully equipped in the modern sense of the phrase, of pleasing appearance and capable of the kind of performance one expects from an engine of the size, can be brought two or three thousand miles to England, through a one-third tariff wall, and still sold at a reasonable profit for £400.

We all know the scamping of "finish" that is usually the secret of low price, but in the Durant—the car we have in mind—which is a comparatively recent introduction into this country, one cannot discover any trace of such scamping. Ignoring mechanical matters for the moment, the exterior paint-work, while not, perhaps, of the standard of a first-class British coachbuilder, does not suggest stove enamelling, and is very distinctly more pleasing in appearance than that of the usual cheap American car.

Then the seating accommodation of this full five-seater is thoroughly comfortable, and has not the stiffness of line and upholstery that so often makes a car unsuitable for really long runs. The finish here, also, is good; there is an appearance of respectability, in fact, about the whole car that is in itself something of an acquisition at the price.

Mechanically the Durant is equally sound. It is easy to drive and, we should imagine, to maintain. We have seldom seen a cleaner engine, nor manipulated more convenient controls, while the springing is unusually good under a wide variation of load. The car that was placed at our disposal for trial purposes ran excellently in every way over a course of some two hundred miles, which included good main road, hills, lanes, fast stretches of level, and, in fact, all the conditions to be found in an everyday, average run.

We have one or two criticisms to make, but, as these appear to be matters remediable by adjustment, we see no reason to modify our statement as to the car's general excellence. The steering had a slight but persistent set towards the left of the road; we imagine that some previous driver had tried conclusions with a kerb—and lost! This, however, should be

easily put right, as also a rather irritating whine, presumably from the timing gears. Finally, we found the headlamps focused to shine on the road too short a distance ahead for comfort, so that one was under the necessity of striving continuously to pierce a strong beam of light and stare into inky blackness—a somewhat trying ordeal.

These things, and especially the last-mentioned, are all capable of adjustment, and we mention them not in condemnation of the car, but in admiration of the optimism of those people who hope for a good report upon a car that is sent out in imperfect condition. The Durant car happens to be getting the benefit of these remarks, but we have long had it in mind to make them. We report upon a car as we find it, making certain allowances that our experience tells us are justifiable; but we should have imagined it to be a better policy only to send out a car for trial that asked for no excuses to be made.

However, to return to the Durant, we can honestly say that, on the face of it, better value is not offered to-day for anyone who is in need of this type of car. But one wonders, incidentally, how far there is a market in the England of the present time for this type of car. The difficulty is, of course, the expense of running a comparatively powerful car, although it may be cheap to purchase; and, on the other hand, the fact that the man who does not mind the expense usually wants a more elaborate and costly vehicle.

The Durant, however—these abstract meditations apart—is a thoroughly sound all-round family car, capable of taking a full load of five people and luggage for an extended tour anywhere in these Isles where there are roads. She is an excellent hill-climber and in every sense a no-trouble car. The maximum speed, while not startling, is ample for touring purposes, and the hill that proves too steep for top gear is worthy of the name.



The Durant engine is of unusually clean design, even the water pump, driven by the fan belt, being to all intents and purposes a part of the engine block.

Much of the design is on the usual American principle, the brake adjustment being especially easy to operate. The demountable rims used are familiar to most motorists.



A GIGANTIC BRITISH COMBINE.

Is a General Amalgamation possible; and, if so, is it advisable?

WHILE it is not our intention to "pull to pieces" Major Oke's article on "Team Work" in the motor industry," on page 22, it is obvious that there are several points that he has overlooked in his outline of a motor manufacturing Utopia.

In the first place there already exists a Research Association of British Motor and Allied Manufacturers which is presumably available for much of the team work, so far as experimentation is concerned, that Major Oke advocates. On the face of it, the pooling of resources in question would apply to British manufacturers only; and the Research Association is open for membership only to British firms. Broadly speaking, members who wish may have research work on a particular point carried out, and a report of the results is circulated to all the members. The results, in fact, are public except in that the information is limited to British manufacturers. But the question arises: How far are these undoubted facilities taken advantage of? If such a scheme were desired of our home firms, one would expect to hear that the Research Association had again and again to extend its premises, its plant and its staff, and yet remain "snowed under."

As a matter of fact, however, our inquiries lead us to believe that the exact opposite is the actual case, and, in view of present conditions and keen competition, we should be much surprised to hear that a manufacturer had submitted anything but an exceedingly unimportant detail to this public research. We were without detailed information as to the activities of the Association, and as a test deliberately refrained from consulting its officials, judging not unreasonably that if much work of real importance passed through their hands the matter would be common knowledge. We have found, however, that those who might be supposed, on these grounds, to know something about the Association know just about as much as we

do ourselves. Having executed our little test we shall be very glad to hear from the Secretary of the Research Association, for we feel sure that authentic information upon the subject, both as to the aims of the Association and details as to the amount of work performed, would be of the greatest possible interest to a certain section of our readers.

So much, then, for public experimentation. Readers may be surprised, however, as we were, to learn that there is a considerable number of what may be termed private research stations dotted about the country which are made use of by manufacturers to an extent sufficient, at any rate, to maintain them in existence. The results of tests carried out at these stations are, of course, secret. The inference is obvious. The trade is not in a position to welcome "team work" as suggested by Major Oke for—to come right down to "brass tacks"—financial reasons. When all is said and done, such a scheme is dependent upon a community of interests, which translated into everyday terms is a plain matter of £ s. d. The first step necessary to secure such team work is the pooling of financial resources, or, in other words, a gigantic amalgamation of all the British motor car and component manufacturers. Immediately the suggestion is made two principal difficulties appeal to one. In the first place, would it ever be possible to satisfy all the shareholders of the old individual companies that their holding in the new combine was justly proportioned to their original weight in the smaller concerns? We foresee that this would prove almost insurmountable, especially in regard to the allotment of the new shares to the shareholders in companies which have been, are now, or were then, in financial difficulties.

Again there is the question: What is a British manufacturer? Would one include the Clement-Talbot and Sunbeam portions of the existing S.T.D. combine and exclude Darracqs?

And what about the intermingled Willys-Overland-Crossley interests? Knowledge as to the semi-international nature of these two concerns is public property, but there are other firms in which such a condition is suspected rather than known; and, anyway, the question of maintaining a purely British combine seems to present an almost uncrackably hard nut.

In the discussion of the question so far we have been presuming the possibility of persuading manufacturers to consider the matter seriously and ignoring altogether the advisability or otherwise of such a scheme. The first disadvantage that suggests itself to our minds is that it would have the effect of destroying altogether internal competition, even though a united front and immense production capabilities would be opposed to foreign competition.

The value of competition as a stimulant to the production of an ever better article at an ever reasonable price is a matter that admits of no argument, but we should imagine that the advantage or otherwise of doing away entirely with individual enterprise in order to concentrate against the common industrial foe—the "foreigner"—is a most debatable point.

This question is actually not a new one; the suggestion was made, as a matter of fact, by Sir Arthur Stanley some months ago; and there is no question as to the theoretical advantages of such a scheme. There is, unfortunately, no question, either, that those advantages are offset by correspondingly great disadvantages.

Our feeling in the matter is that the balance between the two is so much a matter of personal opinion that it would be practically impossible to secure the necessary agreement among potential members of the combine; and that, even if this were possible, that the subsequent financial problems would kill the scheme.

This, however, is merely our opinion. We should welcome other views.

THE "CLUTCHING HAND" IN AUTOMOBILISM.



"Grasp the nettle firmly" does not apply to the control of an automobile. It is possible to start an engine and avoid injury by getting a good grip of the handle in this fashion, but so solid a grasp is unnecessary and dangerous for the novice. In case of a backfire, if one is not ready for it, there is every likelihood of a broken wrist or dislocated shoulder.



This is the correct way to start an engine, and although one is possibly not able to bring quite so much force to bear on the task, it is sufficient—and safe. A backfire simply causes the handle to slip out of the hand, and although it may shoot round and give one a nasty knock at the back of the hand or arm, if one is not quick in avoiding it, nothing worse can happen.



The same principle applies to steering. The way to secure a steady course is not to firmly grasp the wheel with both hands as in this picture. This merely increases the mental and physical strain of driving and neutralises whatever delicacy of control one may be capable of. In other words, one is apt to over-steer and run an erratic and uncertain course.



It is much better for the novice to accustom himself straightway to single-handed control, and a light grasp of the wheel at that. The other hand is then available for gear-changing and brake application, and can, of course, be used to steady the car in awkward places or over bad roads. The pointing index finger of the left hand should be noted.

THE PROBLEM OF LIGHT AND HEAT.

Too much of either is as bad as too little, but both are readily controllable.

The average motorist does not go very deeply into the technical reasons of why his car runs at all, or why on some occasions it runs better than on others. He may be surprised to know, therefore, that it is not sufficient that the water in the radiator should be merely of a temperature lower than that of boiling point. There is such a thing as an over-cooled engine; and there are radiator thermometers.



The Universal model Bryce Moto-meter, the price of which is two guineas;



AN accident has to happen before some people will be warned, or rather will take the precautions advised to prevent them. One wonders how many motorists normally travel around the country without a single spare lamp bulb on the car, simply because so far their lights have never failed. When a spare bulb is wanted, it is usually wanted badly, and it doesn't help any to remember that there is an odd bulb in the waistcoat pocket of a suit in the wardrobe at home, or loose in a door pocket, with an adjustable spanner and a screwdriver equally loose. A complete set of five bulbs should be carried invariably, properly packed in one of the several small cases sold for the purpose. The one illustrated above, made by C. F. Green, of Ebenezer Row, Kennington, is admirable, and costs only 3s. 6d.

With the growing popularity of the accessory known to American motorists as a spot light, considerable misuse of the lamp may bring motorists once again into the bad light of the motoring public. The spot light is to be used, not abused, and for reading road posts and house names at night, or indicating the edge of the road in foggy weather it is invaluable. It should not be used for ordinary driving purposes.



The Anderson "Autorecelite", sold by the Benjamin Electric Co., Tottenham, at 7os.



Another means of controlling heat—ventilators, sold by S. Mills & Co., of Birmingham, at 22s. 6d. per pair.



Make Engines Purr Like Pussies

AN INVITATION TO MOTORISTS

In order to still further popularise

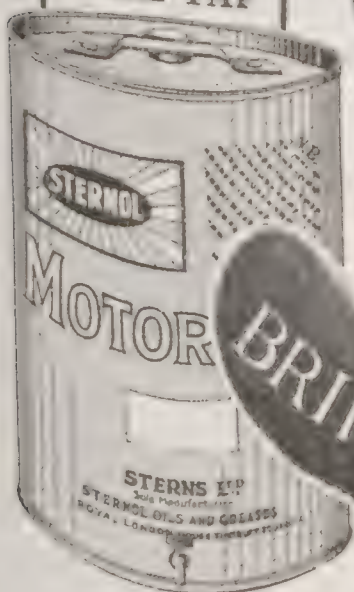
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We invite motorists to try one of our
**NEW ATTRACTIVELY ENAMELLED
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WE PRESENT A FREE HEAVY
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If your garage has not yet received
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see the coupon beneath, and we
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return, carriage paid to
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Please forward me, carriage paid to station
5 gallons of Sternol Motor Oil in the new, attractively enamelled
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HEAVY BRASS TAP. I enclose cheque value 30/-. My car
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ADDRESS

The name and address of my garage are as follows
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GOOD LUCK



I am glad it's an *Austin*

"AUSTIN TWENTY" CATALOGUE 253
 "AUSTIN TWELVE" CATALOGUE 252
 WRITE FOR THEM



THE AUSTIN MOTOR CO., LTD., NORTHFIELD, BIRMINGHAM
 LONDON MANCHESTER BRUSSELS LIANCOURT

AUSTIN design has been proved and approved for sixteen years past. There are now more than 7,000 "Austin Twenty" cars on the road, while of the "Austin Twelve," made as it were in the same mould, there are already several hundred delighted owners. In either car the motorist has that which evokes both pride and trust.

A TRAGIC LACK OF UNITY.

N O W O R N E V E R !

By Captain E. de Normanville.

On the need for presenting a united front on the Petrol Tax question.

AS human nature is generally "much of a muchness" with most normal folk, it is to be assumed that we all suffer on occasion from the temptation to say "I told you so." Yet that phrase is always an unpleasant one to the hearer, and in journalistic etiquette should be avoided in writing. Mind you, I am not suggesting that it always is! Far from it! Well, good my friends, I'm suffering from that temptation very sorely. In fact, I'm going to fall! Several months ago poor little me (which is bad grammar) came out boldly and declared that the Government was going to reconsider the taxation question in the near future, and study again the possibilities of re-introducing the tax on petrol, and also the abandoning of the Registration book. I even went so far as to say that an all-round flat tax of sixpence per gallon was being studied as an alternative.

And how I "got it in the neck"! I was the biggest "terminological inexactituder" since the days of the far-famed Ananias! The statement was flatly contradicted on the highest authority. Government departments and motoring organisations all assured the interested viewers that the statement was "absolutely with-

out foundation" and so on and so forth *ad infinitum et nauseam*.

CLOSER QUARTERS.

Yet these few months have brought us to much closer quarters. Those of you who read these "flat contradictions" in some motoring papers will sympathise with me in my breach of "I told you so" etiquette—even if you do not excuse it. The Government is going to reconsider these questions. I do not say that they will act as we

should like them to act. But the opportunity, the possibility, the chance—these are with us. And it is "Now or Never," at any rate so far as the immediate future interests of motoring development are concerned. Therefore it is more than advisable that the situation should be carefully analysed, and every effort made by every one concerned to have a patently unjust enactment remedied at the earliest possible opportunity.

Why did we fail previously? How came it that so wicked, so foolish, so unjust, so damaging a piece of legislation was thrust upon us? How came it that afterwards representatives of the Government actually arose and cried to the world that *our* representatives had agreed to the proposals? How was such a damnable travesty of facts rendered the resemblance of truth?

NOT A SECOND TIME—PLEASE.

Unfortunately, it cannot be denied that these statements by the representatives of the Government had a substratum of truth in them. Just how much it would be a waste of time to argue. But there was some. That is the outrage. We were sold: sold by our alleged friends—willingly or unwillingly, wittingly or unwittingly,



This photograph shows His Highness the Maharaja of Patiala driving one of his Rolls-Royce cars, with His Royal Highness the Prince of Wales seated next him. The car is on its way back to the Palace at Patiala after a sporting expedition. The official Royal emblem will be noticed on the radiator of the Rolls-Royce and Crossley cars used by the Prince of Wales. The State of Patiala is about the size of Yorkshire, and is inhabited by Sikhs. The Maharaja possesses no fewer than fifteen Rolls-Royce cars, and is a great sportsman and motorist. He is also keenly interested in aviation, and has two aeroplanes fitted with Rolls-Royce engines. Two more cars of the same make are now being constructed in England for His Highness.

THE QUESTION OF BENZOLE.

with good intentions or bad intentions, of free will or under force of circumstance, I do not care an iota. The blunt fact is good enough for me. We were sold—let down badly. In all that miserable business there was only one true and staunch “back to the wall” upholder of our interests. That was Major Stenson Cooke, representing the Automobile Association. When it came to the real fight he had to go into the “no surrender” trenches alone—a glorious stand for principle, conscientious conviction, and for the obvious rights of those whom he represented. But what an outrage that he (and we) should be abandoned by the others! What a let down! *But not a second time—please.*

NOW FOR UNITY.

This must be our first aim. If we are to improve our position, we must on the next occasion have absolute unity. On so complex a problem it is obvious that many able minds will have differing viewpoints. Let them differ as the North Pole from the Equator in their private wrangles or preliminary discussions. Let them argue, counter-argue, and counter the counter-arguments in private deliberation till their tongues are as dry as the sand of the Sahara desert. But let them finally present an absolutely united case to the Government when the due time comes.

On paper all these bodies look the embodiment of unity. So they did on the previous occasion. In point of fact, I think that those who blundered now recognise that they—well, that the existing circumstances warrant a different attitude. That,

however, concerns us not one little bit. Let bygones be has-beens by all means. *But let us have absolute unity this time.*

INSIDE DIFFICULTIES.

And now for a few plain facts about some of the chief difficulties in this taxation problem—and to blazes with any official contradictions “on the highest authority” which may result! The Government is *not* averse to taxation on petrol. (Carry on with the denials, sergeant-major!) It is the Customs and Excise authorities who don’t want it, and have terrorised or cajoled representatives of the Government to say—and possibly believe—that they, the Government, don’t want it. To Hades with the Customs and Excise authorities! What’s their case? There are admittedly difficulties in

taxing petrol. Granted. But who cares? The difficulties are *not—definitely not*—insurmountable, as they tell the Government. If the existing Customs and Excise authorities cannot get over those difficulties—“sack the whole dam lot!” There are plenty of people who can.

AND THE POLICE.

Then there is this accursed little tragi-comedy of the Registration book. The Government are actually desirous of abandoning this childishly futile absurdity. (More denials coming up, sergeant!) But the police authorities invented this brainless little morsel of concentrated fatuousness. And their pride is piqued at its failure! Poor little big-footed, small-minded Bobby! Diddums really! They’re excellent fellows, the police—on their own job.

There is another highly important point. With the gradually improving trading conditions of the country, it will be possible largely to increase the supply of home-produced fuel—British benzole. That improvement will come slowly, but as surely as night follows day, if the extraction is economically practicable. If the motorist has to pay any tax (I am prepared to argue that faulty from the national standpoint), let him pay it in something which will help him and help the nation. The public who motor pay a tax on petrol—not the petrol companies. Their sales would not drop a gallon a year. They would probably go up. There is room for all—but as Britishers, we should all try to encourage British motor spirit production. If a tax is put on petrol—there must be no tax on benzole.



JAMES MONTGOMERY FLAGG

HE WASN'T AN EDITOR'S COUSIN.

Said Louis Terwilliger Snoute,
“If they’d let in outsiders, no doubt
I could write magazines
An’ draw pitchers an’ scenes
Much better than these they get out!”

This is not intended as a sly dig at you. Send in your stories, plays, etc. We’ll read them.—EDITOR.

"SUAVITER IN MODO"

T H E S U P E R - S U N B E A M .

A Car of which the British nation has reason to be proud.

IN looking at old files of articles which we wrote some years before the war, we find such remarks as this: "The automobile has reached so advanced a stage that it is not reasonable to expect any radical alterations in the leading makes this year."

We doubtless thought this to be in accordance with facts when we wrote the sentence; it *was* true, indeed, to a certain degree. And yet in this year of grace we find such a "leading make" as the Sunbeam with redesigned engines; and, good as the cars were last year, they are now improved out of all recognition.

On this occasion we will limit our remarks to the 24 h.p. six-cylinder car. We still have a vivid recollection of our appreciation of the 1920 model, an appreciation which was repeated during a trial run the following year. When the time came for our third annual test of the car, we were told in advance that we should find many mechanical alterations, resulting in astonishingly increased efficiency, smoothness of running, rapid acceleration, and all the features which go to make automobile desirability. We listened to what we were told, but scarcely believed that an already remarkably good car could be so improved in just those details of performance which we had already admired.

In spite of our mental reservations, however, we found the story true to the minutest detail. The car is positively alive, and exercises its enormous power with feline grace and silence. It springs to life at a touch and gently purrs

its pleasure, the long, lithe shape of it heightening the appropriateness of the simile. We have only discovered two other cars which will accelerate from rest to sixty miles an hour in so short a distance and with so little fuss; and the Sunbeam will decelerate with equal celerity and equal smoothness. The remarkable feature of the six-cylinder Sunbeam engine—which, by the way, is not peculiar to the new model—is that, so far as the driver and passengers are concerned, it is as free from noise and vibration at high speed as when idling.

The net result of all this is a greatly increased safety factor in regard to speed—given, of course, a driver of reasonable skill. We would guarantee that nine drivers out of ten who took the car for the first time over a road they knew well would reach their destination considerably ahead of their usual time, provided the clock and speed indicator were shielded from their view. And they would not have been conscious of travelling more quickly than usual at any point.

Apart from its unobtrusiveness, a very material advantage of the delicate controllability of the engine is the feeling of complete confidence which it inspires in the strange driver after a very few moments at the wheel. The considerable length of the car, one would imagine, might prove to be worrying at first, but this, so far as we were concerned, gave us not a moment's trouble. We found a tendency in ourselves to stay in third speed in the traffic of Regent Street immediately upon taking the car over, but on "getting into top" at the first clear space it proved to be unnecessary to change down again either to increase the controllability of the engine or to improve acceleration. The car, in fact, is so instantly sensitive and responsive to the slightest variation in the pressure on the accelerator pedal, and equally to the lightest touch on steering wheel or brakes that, provided there is an adequate reaction between the driver's brain and limbs, the car is to all intents and purposes controlled by thought alone. The self-righting

action of the steering, incidentally, heightens this illusion.

From start to finish—from the starting of the engine on a cold morning to the time when she is run into her garage at night—physical labour is at a discount. The starter is amply powerful, and by using the air strangler, operated from the steering column, the engine starts immediately. The cooling system also is nicely calculated so that although it is impossible to make the water boil with straightforward hard work, the engine yet warms to its task in a minute or little more.



The Sunbeam Six at Chichester, with the famous Market Cross—usually admitted to be the finest in England—in the background.

SOME POINTS OF INTEREST IN THE GENERAL DESIGN

We have already said how little effort is required in the general handling of the car, but we must emphasise the power and smoothness of the brakes in conjunction with the lightness of touch required to operate them. The foot-brake, having metal-to-metal surfaces, and acting on the transmission, is an emergency brake pure and simple, but the side lever, operating on the rear wheels, gives such a wide range of action and is so delightful to use, that there is little likelihood of any average owner misusing the foot-brake.

To a great extent the controllability of the Sunbeam, apart from the enormous but thoroughly docile power that is available, is due to the nice positioning of the various controls, the correct proportions of the driving seat, and its adjustability for distance. The perfect car in this respect would be that for which one had been measured, and in which allowance had been made for one's physical peculiarities, but the effect of the Sunbeam seat is much the same. It is easily operated and gives both a wide and delicate range of adjustment, and, having arrived at the best position for his special requirements, the driver has just that feeling of ease—he feels as though the car had been made for him.

This may seem a trivial point to enlarge upon—some people manage to neutralise deficiencies with the aid of cushions—but we find more and more as the years go on and other slight automobile imperfections are removed one by one, that seating comfort, especially in relation to the driving controls, is one of the most important factors in the making or marring of a car. Brakes, clutch and steering may be almost perfect, but if the accelerator pedal is a trifle—a mere half-inch—too far away or set at a slightly incorrect angle, a long day's run becomes fatiguing and tiresome instead of inducing the pleasant and healthy tiredness—largely the result of a large dose of fresh air and sunshine—which promises a good night's rest to the most obstinate case of insomnia.

It would not have been altogether inexcusable if, in the greater task of re-designing the main mechanical portions of the chassis, these comparatively trivial questions had been overlooked. We were quite prepared, in fact, to find a number of small details which would be capable of improvement in next year's models, and we were the more pleasantly surprised to discover the thoroughness from stem to stern and port to starboard of the



A convenient locker on the left of the instrument board, where spare bulbs or other small articles may be carried.



The Sunbeam steering wheel is of the 'C' type, and is easily operated.



The Sunbeam steering wheel is of the 'C' type, and is easily operated.

GENERAL DESIGN OF THE SIX-CYLINDER SUNBEAM.



The Sunbeam steering wheel is easily controlled from the steering column.



Starting the Sunbeam is an easy matter with the aid of the air strangler controlled from the steering column.



When the side curtains are rolled up, the interior of the car is easily accessible. The side curtains are controlled from the steering column.



new Sunbeam "job." There is evidence of thought in every inch of it; thought, moreover, from the point of view of the users of the car.

The disposal of side curtains, for instance, and of small articles generally which cannot from their nature be stowed away in a tool locker, is often an unsolved problem, especially on a five-seater touring car. In the Sunbeam, the back cushions of the rear seat are loose and hinged at the top, and when lifted disclose a cavity of considerable capacity. The question of side curtains is more important, of course, with the new all-weather type of body, which is now fitted as standard to Sunbeam cars, than it was with the earlier Cape-cart hoods, since the greater area of mica is so much more easily damaged, and the old careless method of carrying the curtains under the cushions is out of the question. The hood of the all-weather Sunbeam, by the way, is one of the easiest to manipulate of any that we have used, in spite of its considerable length and weight. It is a true "one-man" hood, and requires little more than a touch to raise, since, once it is released from the neat anti-rattle fasteners, an invisible spring begins the raising action just sufficiently to get the hood over the dead centre which sometimes renders this anything but a "one-man" task.

A final word should be said as to road performance and petrol consumption. Our route was from London to Guildford, Godalming, Milford, Midhurst, Coking Hill (at 55 miles an hour), Chichester, Selsey, and back to town through Petworth, Pulborough and Dorking. Not once in the whole of that hilly run did we have to change speed, in spite of the rigid observance of all 10 mile speed limits. Consumption worked out at a mere shade under fourteen miles per gallon, and the highest speed reached was 64 miles an hour—a limit set by the nature of the roads and not by the engine. The natural, most comfortable speed of the car proved to be 38-40 miles an hour, and we should judge that, by maintaining that pace and not exceeding forty a consumption of 17 miles per gallon should not be difficult to obtain.

To sum up, we consider that the new Sunbeam embodies everything that a car should be, and, mercifully, it is British. One has no reason to be ashamed of British engineering achievements in general, but this re-designed car is something to be proud of as a national achievement.

THE AMATEUR GOLF CHAMPIONSHIP.

By Charles Ambrose.

Is alteration desirable in present conditions of play?

THE meeting for the Amateur Championship at Prestwick this year is to be made the occasion for ascertaining competitors' views as to whether any alteration is desirable in the present conditions of play. The conservative party (who are to be found in strength north of the Tweed) want to "leave well alone." The "Modern Golf Bolsheviks" (as the conservatives amiably call them) consider the existing test (18 hole match-play) inadequate and fluky, and want to substitute two qualifying rounds, by score play, and a match-play tournament (each match over 36 holes) for the thirty-two survivors of the preliminary score-play rounds.

Lord Charles Hope seems to have brought the notion back from America, where he was touring last autumn, and he circularised leading amateurs in this country to see what sort of support, if any, his proposals were likely to meet with. The result was so startling, in the direction of reform, that it seemed that alteration must come. Even John Ball, greatest of living amateurs, was moved to break his almost impregnable silence and back the Bolsheviks. But the Championship Committee were not to be rushed, and declined to commit themselves without something like a plebiscite. Meanwhile indications are distinctly perceptible that, on second thoughts, some of the Bolsheviks are wavering a little.

There can be no doubt that the Championship Committee (who are appointed by the Royal and Ancient Golf Club of St. Andrews) are perfectly right in deciding to wait

and see. Imperfect tradition is not always adequately replaced by a perfect substitute.

All the same, many British golfers who are staunch supporters of the R. and A. as the proper ruling authority (at a time when there appears to be an agitation afoot to take it from them) would like to see a little more toleration shown to the susceptibilities of American golfers. Let us look at our treatment of them.

In 1904 Walter J. Travis (U.S.A.) won our Amateur Championship, chiefly by superb putting: we promptly barred his "Schenectady" putter.

Last year Jock Hutchison (a naturalised American) won our Open

Championship with "ribbed" irons: we have barred ribbed irons, but allow hollow-faced clubs for a similar purpose—i.e., to "stop" the ball.

Americans don't like stymies, nor interference with a golfer's freedom to choose his own ball (and here many of us certainly agree with the Americans). But to say that Americans are incapable of playing the game in the spirit in which we play it, and that therefore they must go their own way, and we ours, is simply childish.

Another bone of contention between the Americans and ourselves lurks in the penalty inflicted for a LOST BALL. In the old days, before golfers bothered about "card and pencil," if you lost

your ball you lost the hole. That had the supreme merit of simplicity; but with the increase of medal play and pot-hunting generally a demand grew up for some less drastic punishment, and, rather grudgingly, the R. and A. gave way to it—to the extent of allowing another ball to be played, after five minutes' fruitless search, for loss of stroke and distance.

So far, so good. We progress. But the penalty for hitting a BALL OUT OF BOUNDS is left for clubs to decide for themselves between loss of stroke and distance, and loss of distance only, and the latter alternative is accepted by many prominent clubs, including championship courses.

Now what is the player who swears his ball flew OUT-OF-BOUNDS, but cannot substantiate his claim because his ball is also LOST, to do? His partner may not be at all so sure that the ball did go out-of-bounds.

Next month I will deal with this difficulty in detail.



It seems quite possible that in the person of Flight-Lt. Hayward the Royal Air Force may supply one of the surprises of the golfing season now coming on. Not that his success would be such a very great surprise, after all; for Captain Hayward has already done so well in Open Meetings and matches, when he has been pitted against the best golfers, that he has only got to strike a "good patch" to do something big. Technically his game is perfectly sound rather than brilliant: his style is orthodox if somewhat deliberate, and he is a beautiful putter. But it is his indomitable cheerfulness in adversity that takes him so far—that, with a stout seam of genuine fighting spirit running through it.

A VARIETY OF CHARMS.

BOURNEMOUTH AS A MOTORING CENTRE.

Written and illustrated by Clive Holland with special Kodak Pictures.

THERE are few, if any, watering places on the South Coast which can be compared with Bournemouth as a motoring and holiday centre. And at no time in the year is it more enjoyable, more beautiful, and more invigorating than in the Spring.

Not only is the town itself picturesque and well provided with outdoor and indoor amusements of all kinds, but in the immediate neighbourhood there are an unrivalled series of delightful half-day and whole-day tours to beauty spots and objects of interest.

In the spring, onwards till the autumn, Bournemouth presents an ever-changing charm of foliage and beauty. The long stretch of public gardens, which give such unique distinction to the centre of the town, are seen at their best, and sunshine and the ever-varying skies, loved of painters and poets, do their best to intrigue the eye and add a sense of well being.

Bournemouth has been fortunate in its builders and administrators, whose efforts have raised it from the hamlet it was seventy years ago, and the small town of half a century ago, to its

present-day pre-eminence as one of the largest and most popular holiday resorts in the United Kingdom.

The thousands of houses of all sizes—from mansions on the East and West Cliffs and in Branksome, Meyrick, and Dean Parks, to villa residences in all quarters of the town, each standing in its own garden—give a distinctive and very rural character and charm to a town that is going on towards the 100,000 population mark. The incomparable bay, with its wide sandy beach, stretching from the white chalk fragments Old Harry and his Wife at its western extremity, to the bold, sand cliff headland known as Hengistbury Head, which forms the eastern extremity, is justly far famed.

As a centre for golfing motorists—and they are legion—Bournemouth has indeed many attractions. In the town itself there are two good 18-hole courses: one at Meyrick Park—within less than ten minutes walk of the centre of the town—and the other at Queen's Park, with its open heathland and clumps of pine trees.

In the immediate neighbourhood to the westward are Parkstone (3 miles),

Broadstone (8 miles), Swanage, on the fine, bold range of the Purbeck Hills, by steamer (in summer) 9 miles, by road, 21 miles. To the eastward are Barton Court links (11 miles), Brockenhurst (19 miles), the New Forest Club course at Bramshaw and Lyndhurst (20½ miles).

The golfer must be hard to please who cannot find all the variety he needs on these. The farther distance courses are reached by interesting roads through picturesque country.

There are several public bowling greens, lawn tennis courts in large numbers, and croquet grounds.

Of indoor amusements there is no lack, with two theatres and several good cinemas, a skating rink, and swimming bath, to say nothing of the Winter Gardens, with its famous orchestra, delightful symphony concerts, and other entertainments.

The surrounding country is particularly picturesque. To the eastward lies Christchurch (5 miles) with its two rivers, the Avon and Stour, for boating, and the magnificent Priory Church, almost of the dimensions of a small cathedral. The town figures in Sir Arthur Conan Doyle's fine romance



The Lower Pleasure Gardens, for which the town is famous.

The fine square in the centre of the town of Bournemouth.

EXPLORING THE FOREST.

The White Company, and is of very ancient origin. The church stands in a very fine position at the head of the "harbour" or bay. It dates, as to the greater portion of the present building, from the earlier half of the twelfth century, and was the work of the famous Bishop Flambard, the builder of Durham Cathedral. The North Porch, the Western Tower (built into the church), and the north transept are especially notable features. Just within the porch stands the memorial of the poet Shelley and his wife Mary Woolstonecraft.

Forest roads suffered badly during the war; they are now fast recovering, and are on the whole good. Hampshire is one of the best wooded counties in England, and the New Forest is famed for its scenery, its picturesque glades, and giant, centuries-old trees. Many of the latter disappeared during the war years, but "the Forest" is still one of the beauty spots of England.

Brockenhurst may be called the gate of the New Forest. It is a picturesque, scattered village, 19 miles from Bournemouth. Lyndhurst, two miles or so farther, should also be visited on account of its church, which contains some famous frescoes by the late Lord Leighton. Rufus's Stone (5 miles from Brockenhurst), and Beaulieu Abbey (Lord Montagu's seat), the same distance, described in Sir Arthur Conan Doyle's *The White Company*, are both pilgrimage places for motorists.

At the latter place there is a pleasant inn that makes a good centre from which to explore the Forest, visit Romsey and its abbey, and the northern portion of Hampshire. And while at Beaulieu an hour or two can be spent visiting the deserted village of Buckler's Hard, situated upon the banks of the Beaulieu River midway to the sea, where in Nelson's days battleships were built and launched to play their part in the French wars.

North-westward of Bournemouth lies Wimborne (9 miles), the "Warborne" of Hardy's *Two on a Tower*. It is a sleepy little town, situated on the meadows bordering the Stour, dating from Saxon times, and possessing a fine, red sandstone minster church. The latter is worth a visit, for it contains several things of interest. A curious, ancient "Orrery" (a piece of mechanism to illustrate the move-

ments of the heavenly bodies), a chained library, containing a copy of Sir Walter Raleigh's *History of the World*, a hundred pages of which the poet prior carelessly burned through whilst reading it, and the restoration of which is a wonderful feat of penmanship.

Westward of Bournemouth lies the ancient seaport of Poole, and thence one can motor across the heath to Wareham (13 miles), picturesquely situated amid the meads through which flows the little River Trent. It is an ancient town, once possessing walls and fortifications, on the high road to Corfe Castle (18 miles), where stand the ruins of a famous Saxon stronghold which has played many an important part in history, and was burned and dismantled by the Parliamentary forces during the Civil War. Now, the grim and lichen stained pile, in which during troublous times so many unfortunate prisoners languished, is a favourite picnic ground for tourists.

There are few districts, indeed, which offer such a variety of scenery. Chalk cliffs and rocky coast line; sand beaches and pebbly shores; sand dunes and bold headlands; swelling uplands and quiet vales; open moorlands and sheltered woods; quaint, old-world villages and sleepy towns.

What more, with generally good roads, can the most exacting motoring tourist ask?



The old residence of the Adams family, at Buckler's Hard, in which were designed many of Nelson's ships, launched at this spot.



The Priory, from which Christchurch derives its name.



The bold cliffs near Poole Harbour, some five miles along the coast.



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A NOTE ABOUT FRONT WHEEL BRAKES.

Some of the advantages of a device which yet is capable of improvement.

By Wilfred Gordon Aston.

ONE is glad to learn, even though it be by means of information leaking out as to transactions which were intended to be secret, that several British manufacturers of importance are seriously experimenting with front wheel brakes with a view to their early adoption. That what was—as I believe—essentially a British invention should have been unsuccessfully exploited and finally dropped in this country, only to be taken up and made much of in the rest of Europe, is somewhat deplorable. Further, there is no doubt that the system has acted, and still continues to act, as an agency which favours the sale of foreign cars to the prejudice of the home product. That, however, is the price we have to pay for a curious lack of enterprise which may be attributed primarily to a self-sufficient post-war optimism, and, secondly, to a deliberate abstention from road racing. How long it will be before we are able to get back the leeway we have lost remains to be seen, but I do not think there can be any doubt that it is fairly substantial—it is close upon three years of experi-

ence, anyhow, and that is a factor not to be wiped out in a moment.

Front wheel brakes make an appeal because they are so manifestly desirable. Even to the meanest intelligence it is clear that they must (roughly) double the braking capacity, and by the same token they must contribute to the safety of driving no less than to the ability to average better speeds without having to attain so high a maximum pace as would normally be required. It has also been demonstrated on innumerable occasions that front wheel brakes, or, as the modern idea has it, simultaneous braking on all four wheels, is less likely to lead to skidding than braking upon the back wheels alone. There are further incidental advantages which may justly be cited in their favour. On the other hand, it is undeniable that "f.w.b." are not as yet perfect by any means. There are systems which are known to be good and systems which are suspected of being not so good. By and by, no doubt, they will all be good. Meanwhile one is taking no great hazard in pointing out that no system of four-wheel braking is as good as many people suppose it to be. I am writing this article because inside of two days I have heard f.w.b. described enthusiastically as "absolute proof against side-slip." It is, of course, a gross exaggeration, but there is a sufficient substratum of truth in it to justify a brief disquisition upon what is unquestionably one of the strongest "talking points" that the f.w.b. system can boast.

It is a pity that "skid" and "side-slip" have become practically synonymous, as one wants different words to describe a "throwing outwards" such as is occasioned by taking a turn too fast and the sudden involuntary change of direction involved by too swift an application of brakes when the course is normally straight. The nomenclature trouble has, however, (like so many skids themselves), got past mending.

A better understanding of what

f.w.b. can be safely relied upon to do in this connection can be had if we briefly examine the causes of skidding. When a car takes a curve, centrifugal force is developed, and acts in a radial direction. It tends to be resisted by the adhesion of the wheels upon the road, and a skid takes place only when such adhesion is overcome by the centrifugal force. If the c.g. of the car is in the middle, and the adhesion of all four wheels is the same, the skid takes the form of a bodily sideways movement, or "motion of translation." The car may go into the ditch, but its relative forward direction remains unaffected in the process.

As everybody knows, these circumstances very rarely arise, the reason being (it is unnecessary here to go into the question of weight distribution, which for the purposes of this argument can be assumed to be the best possible) that it is almost inconceivable that the adhesion of the rear wheels will be more than momentarily the same as that of the front wheels.

This is because a wheel which is freely rolling has *always* a greater adhesion upon the road surface than



The Sheffield Simplex system—the only British front wheel brake.



The Peugeot, showing the accessibility of the brake adjustment.

A DRIVING HINT.

one which is being either driven or braked—i.e., than one which is transmitting power, either positively or negatively. This fact can be demonstrated by feeling the difference in power required to drag a bicycle sideways, first when it is stationary, and, second, when it is being quite slowly moved forward. A cotton reel on a table or a roller on a wet lawn will serve the purpose equally well. The action can be, perhaps, comprehended by imagining that the molecules on the edge of the wheel, reel or roller, cut, as it were, teeth in the molecules of the surface over which they roll. If a circumferential force is applied these teeth tend to be stripped, relative motion prevents more from being developed, and adhesion is lost.

Compare the action of clutches which will tend to go on slipping once they have started, but will often hold like grim death when once allowed a fair engagement.

In the light of this let us return to the above-mentioned conditions. If the adhesion of the back wheel is less than that of the front, it is clear that the rear end of the car will be thrown outwards more easily than the forward end, and this necessarily involves a more or less violent change in direction. The latter is, it is almost needless to say, the greatest potential source of danger.

The tendency to skid round a slippery curve, or a curve taken too fast, must always exist with a car that is not both driven and braked on all four wheels. (We will assume that all the tyres are fitted with equally holding treads.) The reason is that,

for all practical purposes, the back wheels *never* roll freely. Ordinarily the engine is transmitting power through them. Even when the clutch is taken out they are called upon to overcome the friction of the whole of the transmission—by no means a negligible quantity. When the accelerator pedal only is released they have to drive the engine as well. And when the brakes are harshly applied they may be asked to deal with more energy than the engine could ever put through them.

Skidding is the "very devil," because the natural instinct of almost every driver is to try to check it by putting on the brakes. If these are on the back wheels alone, the skid, for the reasons given above, will be accentuated as far as the back part of the car is concerned.

The skid which occurs when one is not taking a curve, but trying to drive straight forward on a slippery surface, is, in essentials, exactly the same as the centrifugal skid. The component due to centrifugal force is, in this case, merely replaced by a component which owes its existence to the fact that one wheel (it makes no difference whether it is being driven or braked) gets more adhesion momentarily than the other. The front wheels commonly hold their ground (if left to themselves), whilst the back wheels have so little adhesion that only a very small force is required to twist the vehicle out of its natural course. [Mem.: on grease treat the accelerator, especially on indirect gears, and the brake controls in a gingerly fashion, and your skids will be but trifling affairs. When in doubt take the clutch out.]

Now, it is clear enough that if the engine is driving the car round the curve and the pace is too hot, the presence or absence of front wheel brakes cannot make a particle of difference one way or the other. Hence it cannot be said truthfully that f.w.b. prevent skidding in these circumstances. On the other hand, if the car is being braked round the curve (a very common occurrence in ordinary driving) or is being braked because a skid has started (which is simply an exaggeration of the same thing), then undoubtedly brakes on all four wheels are an immense advantage. Even allowing for the frictional load of the transmission which is added to the back pair of drums, the application of all the brakes simultaneously will keep the adhesion of all the wheels approximately equal, and what is of great importance a very

great retarding effort can be applied without locking any of the wheels, and so impairing its or their adhesion very seriously.

It will be seen that proper action of the brakes in this respect implies equal friction in all of the drums and equal adhesion between the road and all the wheels as determined by the properties of the tyre treads in use. If there are two smooth covers on the rear wheels and two good new rubber non-skids on the front wheels you can still have violent skids with f.w.b. But you are always less likely to go "off your course" than if you have rear wheel brakes alone.

Two further benefits of front wheel brakes may now be mentioned. In all cars it may be assumed that the centre of gravity of the sprung weight is distinctly above the centres of the wheels. In that event, if a retarding force is applied by virtue of the brakes, the point of application of this force will not be in line with the force represented by the momentum of the car. Hence a couple will be formed, and the result will be that the load on the front springs will be increased and that on the rear springs correspondingly reduced. This will tend to increase the adhesion of the former and decrease that of the latter, so that it is evident that if the front wheels are braked (either with or without the back brake as well, an additional advantage is gained, as in these circumstances the front wheels can be braked harder without the risk of their becoming "locked" and losing their retarding effect.



The Delage brake is of notably clean design, and is also easily adjusted.



Renault front wheel brakes, like the rest of the chassis, are reduced to essentials.

KEYS TO MIRTH.

GREAT LITTLE NELSON KEYS.



Mr. Nelson Keys is surely the most finished light comedian on the British stage. For sheer artistry his many impersonations and cameos of character simply cannot be beaten. It is as though he has a variety of skins which he can adopt at will so thoroughly does he sink his own personality in that of the characters he interprets. In Miss Irene Russell he has an able and attractive assistant who lends not a little charm to his present production, "The Curate's Egg," at the Ambassadors.



THE CURATE'S EGG.



THE MOTORIST'S BOOKSHELF.

Some New Books for the Car and Garden Chair.

By Aylmer Norris.

THE Spring is here again. The road and countryside are re-asserting their lure. The hills and vales, the stretches of moorland and the forest glades are calling.

In many homes "road books" are being taken down from shelves, and merry week-end tours are being planned.

Year by year, we think, motorists are learning that the countryside is more than a straight road to be covered at top speed, or a crooked one to be "negotiated" with caution. Quite a number of my motoring friends are nowadays seeing things.

Very welcome is the news that Charles G. Harper's most excellent series of "road" books is to be reprinted in handy form and in a new and revised edition. *The Brighton Road* has come to me from Mr. Cecil Palmer, the publisher; and neatly bound, well-printed and illustrated, it is astonishing value for the seven and sixpence asked. In this entertaining volume one learns all about Sussex roads, the many picturesque "bits," quaint villages and interesting places that lie between the Borough High Street and the Dome, Brighton. Then one gets *Records*, strange adventures of the road, past and present, and nowadays; even if the road to Brighton is not above criticism, it is far better than when Dr. John Burton found it in 1751. He describes it, and the country, as "all that was most bad, upon a land desolate and muddy." We have improved things since then. A good book for the car or bookshelf. The pictures vividly recall many memories of Sussex sunshine and breezy uplands.

ANOTHER SUSSEX BOOK.

In Mr. Edric Holmes's *Seaward Sussex: the South*

Downs from End to End" (Robt. Scott, 7s., illustrated), one has a different kind of book, with plenty of good maps and plans and charming illustrations. The appendices give some valuable information regarding roads, distances and sketch routes.

One could not have a better "silent friend" in the car than this little volume. The author knows his Sussex well, and what is best worth seeing and knowing about the county of the crows. Little escapes him, and at Salvington our attention is drawn to the cottage named "Lacies," where John Seldon was born in 1584, with its Latin inscription, written by him at the age of ten, and translated thus by Johnson:

"Walk in and welcome, honest friends,
repose;
Thief, get thee hence, to thee I'll not
unclose."

Excellent sentiment.

Mr. Holmes has done his work well, and the hundred drawings by Miss Mary M. Vignier are charming.



"Bow and Arrow" Castle, reproduced from "Wanderings in Wessex," by the courtesy of the publisher, Mr. Robert Scott.

"WANDERINGS IN WESSEX"
Is the title of another book by the same author, which the same artist illustrates (Robt. Scott 8s. 6d.). Of course, the term Wessex will inevitably be associated in the mind with Thomas Hardy and his wonderful series of romances. But Mr. Holmes has, I think wisely, made Wessex a wider term, covering a greater area than it does in several other books upon the same subject. One gets in his pages not only adequate reference to the great novelist and poet who lives at Dorchester in the heart of Wessex, but also much antiquarian and topographical information brightly and pleasantly written.

"THE TENT OF BLUE"
Lady Dorothy Mills' latest novel (Duckworth, 7s. 6d.) has an alluring title, suggestive of open skies, and where the long trails go down. It begins amid somewhat hectic surroundings—reminding one not a little of the glittering trivialities of Stephen Mackenna, and one can only hope that "Society" is not quite so bad as Lady Mills paints it; and that the talk of the so-called "smart set" is not quite so slangy and obvious as she would have us believe.

Rachel Dwyer, who flees to the Desert of the Garden of Allah to escape the maunderings and violence (of words) of a stupidly jealous husband, is well drawn.

We regret that in the April number of THE MOTOR-OWNER the "captions" of the two large pictures of Lady Hankey and the Hon. Mrs. Henry Mulholland were accidentally transposed.

We understand that K. I. G. spark plugs were fitted to the first, second and third cars in every race at the Brooklands Easter Monday meeting. Surely this is a record!

AN ALL-ROUND REDUCTION.

SECOND - HAND ANOMALIES.

An Analysis of the Change in Conditions Affecting the Sellers and Purchasers of Used Cars.

A GREAT deal has been said and written upon the subject of decreasing car prices, but only from the point of view of new cars. In the second-hand market, however, the downward tendency—naturally, perhaps—is equally noticeable, and in many a case has doubtless been the cause of a considerable upsetting of plans. It is a fairly common practice among British motorists, although not so usual as in America, of course, to purchase a car with the definite intention of selling it after a season's use—before, in fact, mechanical deterioration has become apparent. Such a plan involves a certain sacrifice at each transaction, but has the corresponding advantage of providing the operator with a new car at the beginning of each season at a comparatively small outlay. In normal times it is a plan distinctly to be recommended, although, on the other hand, it is possible to develop such an affection for a good car that one would rather face the prospect of writing off the original cost over a number of years than of parting with the vehicle while it is still readily saleable at a good figure. In these post-war years, however, there has been no secure basis upon which to build, and many a purchaser has found to his cost that at the end of the year the second-hand value of his car, owing to reductions in the manufacturer's list price, is a hundred pounds or more less than he had anticipated. A study of the second-hand car advertisements—both in the press and in the sale rooms—reveals some queer anomalies. There is, for instance, a good little car selling in large numbers at the present moment at £299, yet the average second-hand price asked for practically identical cars by the same manufacturer after one to two years' use is £290! This, presumably, is due to the popularity of the make and the excess of demand over supply. The decreases in the second-hand

Subjoined is an abridged list of various popular cars showing the respective reductions in second-hand value as compared with last year:—

Make	Type	Average Price	
		1921	1922
A.C. ..	About 12 months	£417	£343
Albert ..	Coupe, 12 months	687	361
Alvis ..	About 12 months	570	350
Angus-Sanderson	About 12 months	530	340
Armstrong-Siddeley	About 12 months	1120	808
Arrol-Johnston	About 12 months	540	465
Austin ..	About 12 months	563	490
Bean ..	About 12 months	427	375
Belsize ..	About 12 months	644	403
Belsize ..	Older ..	250	152
Buick ..	About 12 months	693	340
Buick ..	Older ..	438	205
Calcott ..	About 12 months	510	381
Calcott ..	Older ..	321	240
Calthorpe ..	About 12 months	391	351
Chevrolet ..	About 12 months	323	166
Citroën ..	About 12 months	346	277
Crossley ..	About 12 months	885	513
Cubitt ..	About 12 months	367	295
Deemster ..	About 12 months	340	265
G.N. ...	About 12 months	245	133
G.W.K. ..	About 12 months	260	218
Hillman ..	About 12 months	490	340
Hudson ..	About 12 months	581	500
Humber ..	10 & 11 h.p., about 12 months	528	450
Humber ..	15.9, about 12 months	894	660
Humber ..	Older models ..	375	243
Hupmobile ..	Old models ..	324	210
Lagonda ..	1 to 2 years old ..	302	195
Maxwell ..	1 to 2 years old ..	344	187
Maxwell ..	Older models ..	187	95
Morris Oxford	1 to 2 years old ..	489	325
Morris ..	1 to 2 years old ..	369	290
Do., either type	Older ..	281	219
Overland ..	1 to 2 years ..	381	221
Phoenix ..	1 to 2 years ..	347	320
Rover ..	8 h.p., 1 to 2 years	250	177
Rover ..	12 h.p., 1 to 2 years	550	486
Rover ..	Old 12's ..	375	249
Singer ..	1 to 2 years ..	375	273
Singer ..	Older ..	267	170
Standard ..	Up to 1 year old	441	407
Sunbeam ..	16 h.p., 1 to 2 years	655	608
Sunbeam ..	16 h.p., older ..	487	290
Talbot-Darracq	1 to 2 years old ..	700	412
Vauxhall ..	25 h.p., 1 to 2 years old	914	758
Wolseley ..	10 h.p., up to 2 years	512	376
Wolseley ..	15 h.p., up to 2 years	1142	590
Wolseley ..	Old 16-20 model	448	300
Wolseley ..	Old 24-30 h.p. model	566	420

market seem to be freakish in their variation. There appears to be no particular reason why the decrease for one sound English make should be as low as 7.2 per cent., as compared with the same period of last year, while that for another equally well-known car of similar type should be as high as 48.3 per cent.

The average decrease, compared for the periods immediately before Easter this year and last year, and covering fifty models of thirty-eight different makes, works out at a trifle under 30 per cent.—from which it can be imagined that there are comparatively few decreases below 10 per cent. It so happens that there are three only in the list before us—the 16 h.p. Sunbeam, 11.6 h.p. Standard, and the Phoenix, all of which are between 7 and 8 per cent. Modern 12 h.p. Rovers apparently sell at only 11.6 per cent. less than last year, although the 8 h.p. model has dropped by nearly 30 per cent., while the Calthorpe (10.2 per cent.), Bean (12.2 per cent.), Austin (12.9 per cent.), Arrol-Johnston (13.9 per cent.) and 11.4 h.p. Humber (14.7 per cent.) run them fairly close.

The cause of the general decrease is obviously the general reduction in the price of new cars that has taken place in the period under review, and the principal deduction to be drawn from an analysis is that now is most essentially the time to buy—whether new or secondhand. List prices, after their fluctuations of the past few years, may be reasonably considered stable at last; that is an accepted fact. A reflex action is naturally noticeable in secondhand values, and although it may require longer for the ripples to smooth out, so to speak, it is fairly obvious that stability has been reached in this market also. So, to put the matter bluntly, those people who have been waiting to get the fullest possible benefit from the downward tendency of prices need "hang on" no longer. Now is the time to buy.

THE OVERHEAD VALVE QUESTION.

“ I B E G T O D I F F E R — . ”

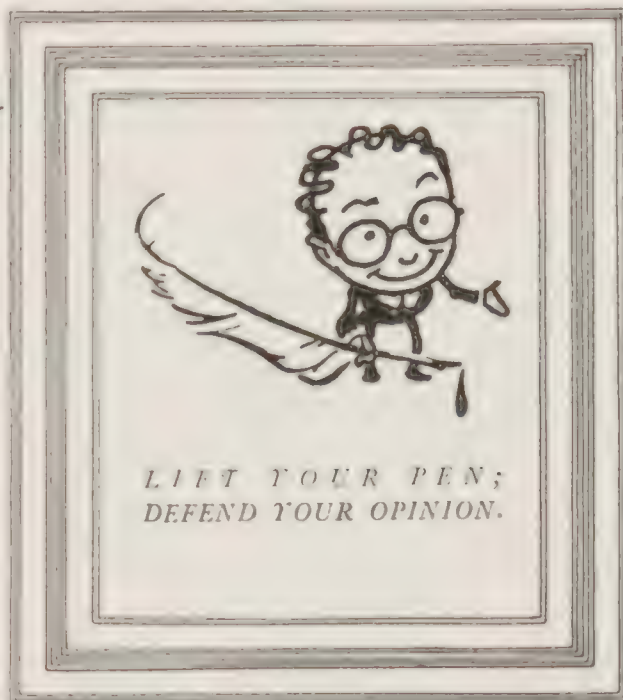
The Opinions of Readers on Subjects of Interest to Motor-Owners.

SIR,—I have read Captain W. Gordon Aston's article 'Are Engines Too Efficient?'

If I had read this article six months ago I think I should have agreed with everything that Captain Aston says, but during the last six months I have had a good deal of experience with the overhead valve six-cylinder A.-C. car, and this has quite converted me to the reasons, and good reasons, for using this type of valve on what may be termed a light motor car engine of some 1,500 to 2,000 cc.

Now, in the first place, the side-by-side engine with detachable cylinder heads has practically no advantage over the overhead valve type of engine in regard to getting at the valves themselves if you want to. In the past that was one very important point in favour of the side-by-side valves—that you could easily get at them and easily take them out, but in these modern engines, quite outside any other reason, one cannot afford the necessary engine length to allow one to have valve caps to remove the valves through, as every extra inch put on to these little highly efficient engines means very material increase in weight.

So as both types of valves on modern engines have equal disadvantages, one has to consider the advantages of the overhead valve type, and on this point I cannot agree with the writer of your article that the overhead valve engine does not run as well slowly as the side-by-side valve. My experience on A.-C. cars, as well as on Sunbeams, to say nothing of others, shows me that the overhead valve engines made by these firms cannot be beaten for slow running and good pulling at slow speeds by any side-by-side valve engine of similar size. But there is undoubtedly a great advantage in the overhead valve from the point of view of better engine cooling. The overhead valve form of construction lends itself to better water ways round the cylinder and cylinder heads, and this enables one to have a smaller radiator and less



volume of water to be carried to cool a given amount of horse power.

I think there are still many uses for the side-by-side valve and much justification for its use, and I am not satisfied as to which type of engine will eventually become universal, if ever one does; but at any rate the overhead valve engine will not lose its popularity through many of the reasons advanced by your correspondent.

Yours faithfully, S. F. EDGE.

SIR,—In his article in THE MOTOR-OWNER April issue, raising the question "Are Engines Too Efficient?" Captain Gordon Aston expresses several opinions which cannot be allowed to pass uncombated.

At the outset, in reviewing the modern lines of development, he prefaces his argument with the remark: "It is curious that everybody seems to have taken the direction in which the modern motor car has been developed as being the only legitimate and natural one." Superficially this may appear to be curious, but actually it is a logical and inevitable piece of evolution. Any successful development making for higher efficiency or yielding more power for given cylinder dimensions must become adopted. Broadly, higher efficiency results in less weight of engine for a given b.h.p., and, consequently, less weight of chassis, which means less wear and tear of mechanism and tyres, less fuel consumption, and therefore lower run-

ning costs. Any development that improves the thermal efficiency of an engine is a legitimate and natural one.

Captain Aston's remark in favour of side-by-side valves: "It is more controllable, and fires more evenly and steadily at low speeds," is not borne out by experience, the reason being that the "L" or "T" head combustion spaces vary owing to casting inaccuracies, and cannot commercially be machined to give equal volume between one cylinder and another; whereas the overhead valve engine permits of a combustion space so formed that it can be accurately machined; the compression of all cylinders is equal within narrow limits, and consequently the torque is much more even than can be obtained with an engine having the defects common to the "L" or "T" head. This contention is borne out by the fact that it is common practice with modern six-cylinder overhead valve engines to be able to run the car at 80 engine revs. per minute without slipping the clutch and with absolute uniformity of ignition.

I cannot follow Captain Aston's remark that the overhead valve engine shows its favourable characteristics at the wrong end of the power scale. It is at low speeds that the overhead valve engine shows particular advantage over the "T" or "L" head engine, due to the fact that heat loss is greater on the latter, and therefore the mean effective pressure at low speeds is lower. This is less apparent at higher speeds, as there is less time for heat to dissipate through the combustion space walls; and at the high end of the power curve there is little, if anything, to choose between the overhead valve engine and the side-by-side. With regard to high engine speeds, many makers of the side-by-side type maintain that they can run their engines up to 3,000 or 4,000 revs. per minute, and it is doubtful if any overhead valve engines exceed this figure.

Yours faithfully,
GEO. H. LANCHESTER.

A COMPREHENSIVE PRIZE LIST.

REVIVAL OF A FAMOUS EVENT.

The Caerphilly Hill Climb and Porthcawl Speed Trials.

THE decision of the South Wales Automobile Club to revive the Caerphilly hill climb and Porthcawl speed trials this year will have been welcomed by all motor owners who are interested in the competitive side of the pastime. In the past the combined annual events, which have been necessarily suspended since 1914, ranked among the few most popular fixtures on the competition list. They were always productive of excellent sport, and taking into account also the dinner which was—and will be again—a feature of the programme, the meeting was keenly anticipated and unvaryingly successful.

In 1914 the fastest time of the day in the speed trials was made by L. Hands on the Earl of Shrewsbury and Talbot's 25-50 h.p. Talbot, whose average pace was 68.97 miles an hour. Much has happened in the eight years, however, and it is likely that this speed will be far exceeded this season—probably by a much smaller car. Incidentally, the same car and driver carried off the prize for the fastest time in the Caerphilly hill climb in '14; and here again this year's performances are likely to provide a striking commentary upon the trend of design and extent of improvement in the intervening years. It is interesting to note that although the fastest motor-cycle in the hill climb in 1914 beat the Talbot by 4 seconds, in the speed trial the car was some 9 seconds better than the fastest two-wheeler.

The meeting is to be held



The last Caerphilly Hill Climb. A bad skid on a corner results in a burst tyre.

on June 28th and 29th next. There will be seven open and eight closed classes for the hill climb, and seven each for the speed trials. The list of awards is remarkably comprehensive, including as it does twenty challenge cups, a number of medals for fastest time, etc., and twenty-nine each of first,

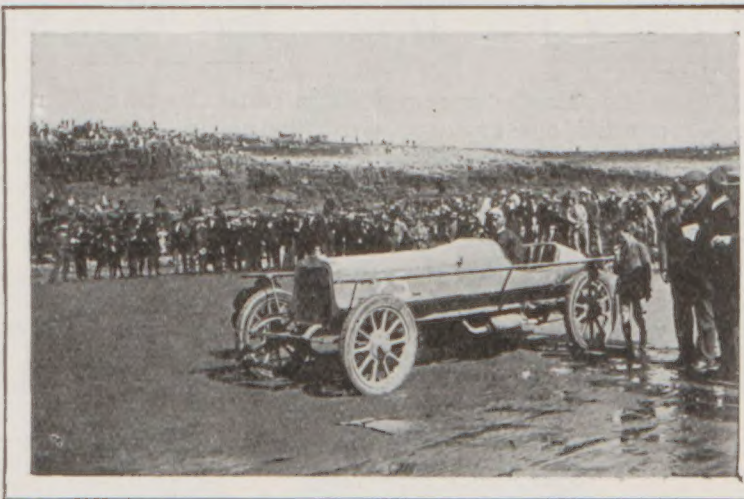
second and third prizes. It may be remarked in passing that THE MOTOR-OWNER, in pursuance of its belief that this class of competition is of the greatest possible benefit, both direct and indirect, to the private car user, is awarding four handsome silver cups, one of which will be allocated to each of the open and closed classes in the two events, the awards being made for the best figure of merit in the hill climb and the best time in the speed trial.

Intending competitors should note that the entry list closes at ordinary fees at 10 a.m. on June 19th, although late entries will be accepted at increased fees up to 10 a.m. on the 22nd. Fuller particulars than we are able to give at the moment may be obtained from the hon. secretary of the South Wales A.C., Mr. J. Thompson Willows, whose address is 2, Dumfries Place, Cardiff.

Although it is possible that the same plan may not be followed exactly this year, it may be interesting to state that in 1914 the figure of merit for the hill climb was arrived at by the following formula:—

Weight in lbs.
Time in secs. \times h.p.

The horse-power is calculated by multiplying the square of the bore by the cube root of the square of the stroke (both in inches); then multiplying by the number of cylinders, and dividing the result by 7.5. This is a little complicated, it is true, but it probably gives a better approximation to the actual power than the R.A.C. formula.



The Talbot Car which made fastest time in both hill climb and speed trials in 1914. Note the heavy surface of the sand.

WHAT'S ON IN MAY?

Lighting-up time for London: May 1st, 8.45 p.m.; June 1st, 9.30 p.m.



- | | | | |
|----------|--|----------|--|
| 1. M. | Royal Academy Opens.
A.C.U. Scottish Six Days.
Polo Season Opens. | 17. W. | Racing: York. |
| 2. T. | Racing: Chester. | 18. Th. | Royal Tournament, Olympia, opens. |
| 3. W. | Racing: Chester Cup. | 19. F. | Racing: Doncaster. |
| 4. Th. | Racing: Chester. | 20. S. | Royal Meeting at Brooklands. |
| 5. F. | Racing: Kempton Park.
Royal Scottish Automobile Club
1,000 Mile Light Car Trial. | 21. Sun. | Armaugne Cyclecar Race, France. |
| 6. S. | B.M.C.R.C. Members' Meeting. | 22. M. | Racing: Lewes.
Golf: Amateur Championship begins,
Prestwick. |
| 9. T. | Racing: Newmarket. | 23. T. | Royal Horticultural Soc.: Flower
Show, Chelsea. |
| 10. W. | Racing: Newmarket. | 24. W. | Racing: Brighton. |
| 11. Th. | Racing: Newmarket. | 25. Th. | Fuel Consumption Trial, Le Mans. |
| 12. F. | Racing: Gatwick. | 26. F. | Racing: Lingfield. |
| 13. S. | Racing: Gatwick.
B.A.R.C. Meeting. | 27. S. | Racing: Lingfield.
Polo: Whitney Cup Final, Hurling-
ham. |
| 14. Sun. | | 28. Sun. | |
| 15. M. | Polo: Social Clubs Cup, Hurling-
ham.
Golf: British Ladies' Championship
begins, Sandwich. | 29. M. | Polo: Open Challenge Cup Tourna-
ment begins, Roehampton. |
| 16. T. | Racing: York. | 30. T. | A.C.U. Junior T.T., Isle of Man.
Racing: Epsom. |
| | | 31. W. | Racing: Epsom. Derby Stakes. |

THE STATE OF THE ROADS.

THE following road information is compiled from reports received by the Automobile Association and Motor Union:—

The Bath road is poor in places between Colnbrook and Taplow, also through Savernake Forest, but otherwise good.

Repairs are in hand on the Brighton road at Reigate, Redhill, Povey Cross, Crawley, Handcross and Patcham. The surface otherwise is in generally fair condition.

Except for a poor stretch between Fenny Stratford and Stony Stratford, the road surfaces on the Coventry road, and in the Bedford District, are good. Caution is advised through Redbourne. Repairs are in progress at Hockliffe and 1 mile north of St. Albans (full width) on the Harpenden road.

The Eastbourne road is in generally fair condition, sewerage work being in progress at Whyteleafe and full width re-metalling between South Godstone and Blindley Heath. Reconstructional work is in hand between Wilmington and Salmaston on the Lewes-Eastbourne road.

The Folkestone road, which is being widened at Farningham and Kingsdown, is otherwise in good condition. The roads in the vicinity of Canterbury are bad.

The Hastings road is poor through Sevenoaks and Battle, but otherwise fair. Caution is advised through Robertsbridge. Repairs are in hand at Riverhill and Pembury.

The surface of the Oxford road is poor to Stokenchurch, then fair. Full width

re-metalling at foot of Dashwoods Hill. Caution is advised here and on the Aston Rowant Hill. Full width repairs 1 mile north of Woodstock.

The Portsmouth road is poor from Witley Camp to Thursley and from Liphook to Liss; otherwise good. Caution is advised through Guildford, Godalming and Petersfield. Best route for Guildford to Horsham is via Shalford bridge, then left for Womersley and Cranleigh.

Tar-spraying is in progress at intervals on the Virginia Water-Reading road.

The Southampton road is poor in places from Hartley Row to Basingstoke. Poor stretch between Chandlersford Bridge and Compton Tunnel. The Water Bridge on the Botley-Shedfield road is under repair; half width only available—care necessary.

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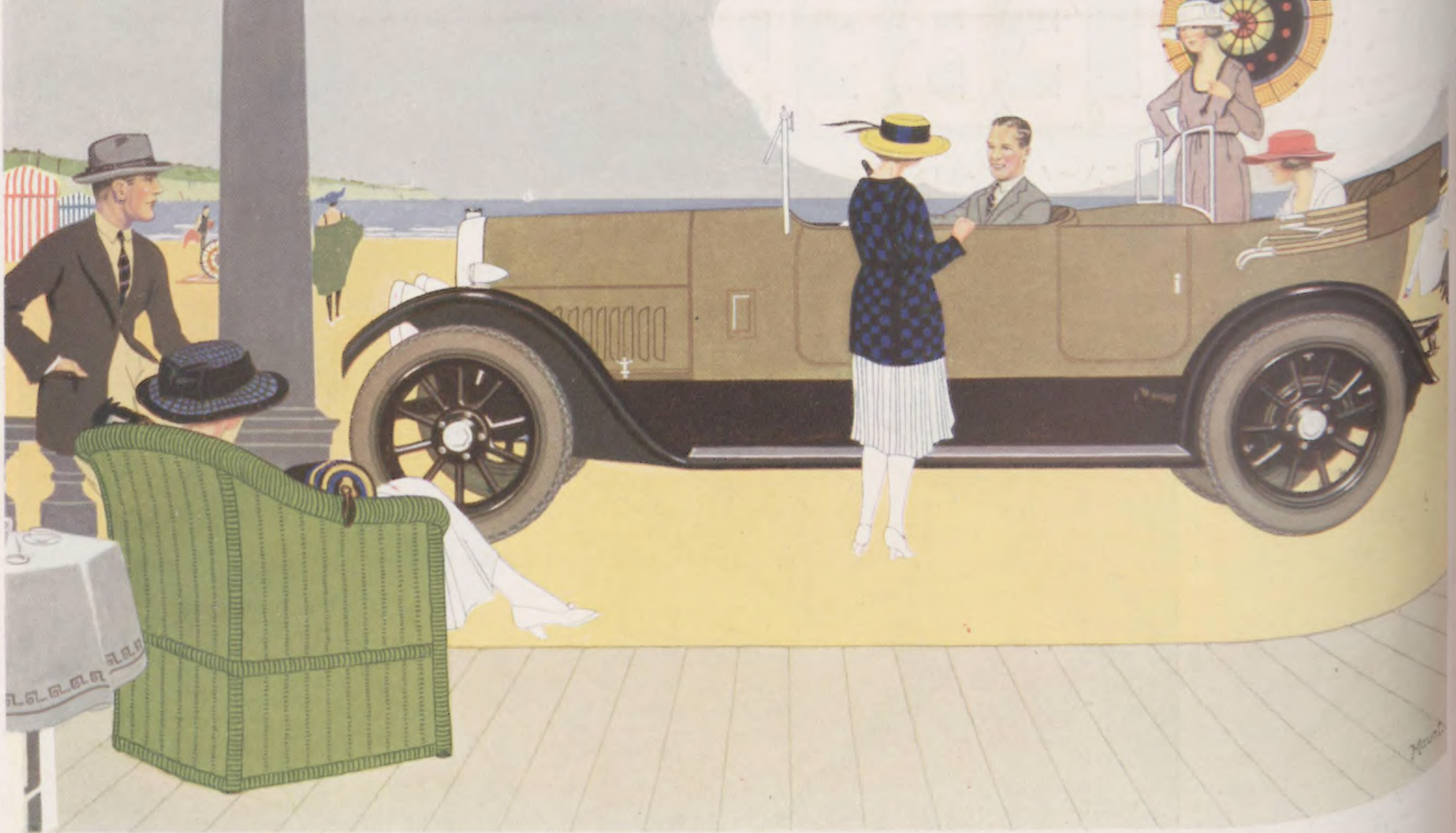
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